

MOTOR AGE

QUAKER SHOW A BRILLIANT DISPLAY



PHILADELPHIA Pa., Jan. 5—Promptly on the stroke of 8 o'clock tonight Mayor Weaver opened the annual show in the First regiment armory, after a short speech, by touching a button which sent the current through the wires and into the countless electric lamps which decorated not only the interior of the armory building, but were festooned on both sides of Broad from Callowhill to Arch street. It was the first public function Mayor Weaver had attended in 2 months, and the management had to be content with the few words of congratulation he offered for the evident success of the efforts. The mayor's speech was greeted with a symphony of honk, honks—and the show was on. Outside the armory the scene was brilliant in the extreme. The show building and the thirty-five establishments which constitute Gasoline Row were tastefully decorated with electric lights and bunting, the continuous strings of lights extending for a third of a mile on both sides of Broad street, giving the hoped-for impression of a huge street show. This overflow exhibition feature was practically forced on the committee, for the inadequate dimensions of the armory building allow the majority of the exhibitors but meager space in which to display their wares. In addition to the decorations

many of the row establishments had music and refreshments as adjuncts to their supplementary shows and in this way made a good showing.

As a concession to the motoring people the city officials will allow the handsome and expensive electric decorations on the city hall, put up especially for the elaborate New Year festivities peculiar to the quaker city, to remain in place during show week. Looking south on Broad street, the strings of colored lights extending even to the top of Billy Penn's hat, 550 feet in the air, and the outlining of the building proper in similar fashion, form a particularly brilliant background to what doubtless is the Quakers' biggest show.

An idea of how the street show feature attracts the public may be had from the statement that the broad pavements on both sides of the street were so blocked by sightseers who flocked from showroom to showroom, that progress for the ordinary pedestrian was exceedingly difficult. Out in the broad roadway hundreds of whizzing motor cars made the passage from one side to the other a matter of wary calculation. If the auxiliary street show had been a carefully-thought-out feature of the exhibition instead of an eleventh-hour makeshift to eke out the shortcomings of the much-too-small armory it could not have been more successful or effective. The managers have builded better than they knew. This afternoon a preliminary view of the show was afforded 4,000 invited guests, composed of the

tradesmen, club members and patrons of the various exhibitors living within a hundred miles of Philadelphia. The invitation was responded to so numerous that not a few exhibits, delayed in transit, were held up at the entrances until the crowd thinned out at the supper hour.

When the mayor flashed the lights at 8 o'clock the scene which greeted the eyes of the more than 8,000 visitors was a brilliant one. Over the three aisles which extend the length of the main building are arranged continuous trellises, the foliage apparently in full leaf, and sprinkled with countless tiny vari-colored electric bulbs which twinkled charmingly through the leafy bowers. Overhead are festoons of bunting of white, green and gold, which, while charming in their general effect, were heartily condemned by the numerous photographers who during the afternoon had tried to get general views—and couldn't. From the balcony—the only place whence a fair view of the main floor can be had—these festoons hide two-thirds of the show.

Each booth is indicated by signs of gold lettering on a rich olive green background and the uniformity in this respect is carried out in the rule of the show committee prohibiting exhibitors from attempting to outdo one another in the matter of special electric decorations—all decorative work, in fact, having been taken care of by the sub-committee to which this work had been assigned. Uniform white enameled rails with green hangings separate the various exhibits and a dull green floor covering carries out the decorative plan. The arrangement and disposition of the spaces is a monument of self-restraint on the part of the exhibitors. Everybody seemed willing to give everybody else a chance in this respect, by getting along with a minimum of space. Even such large establishments as the Quaker City

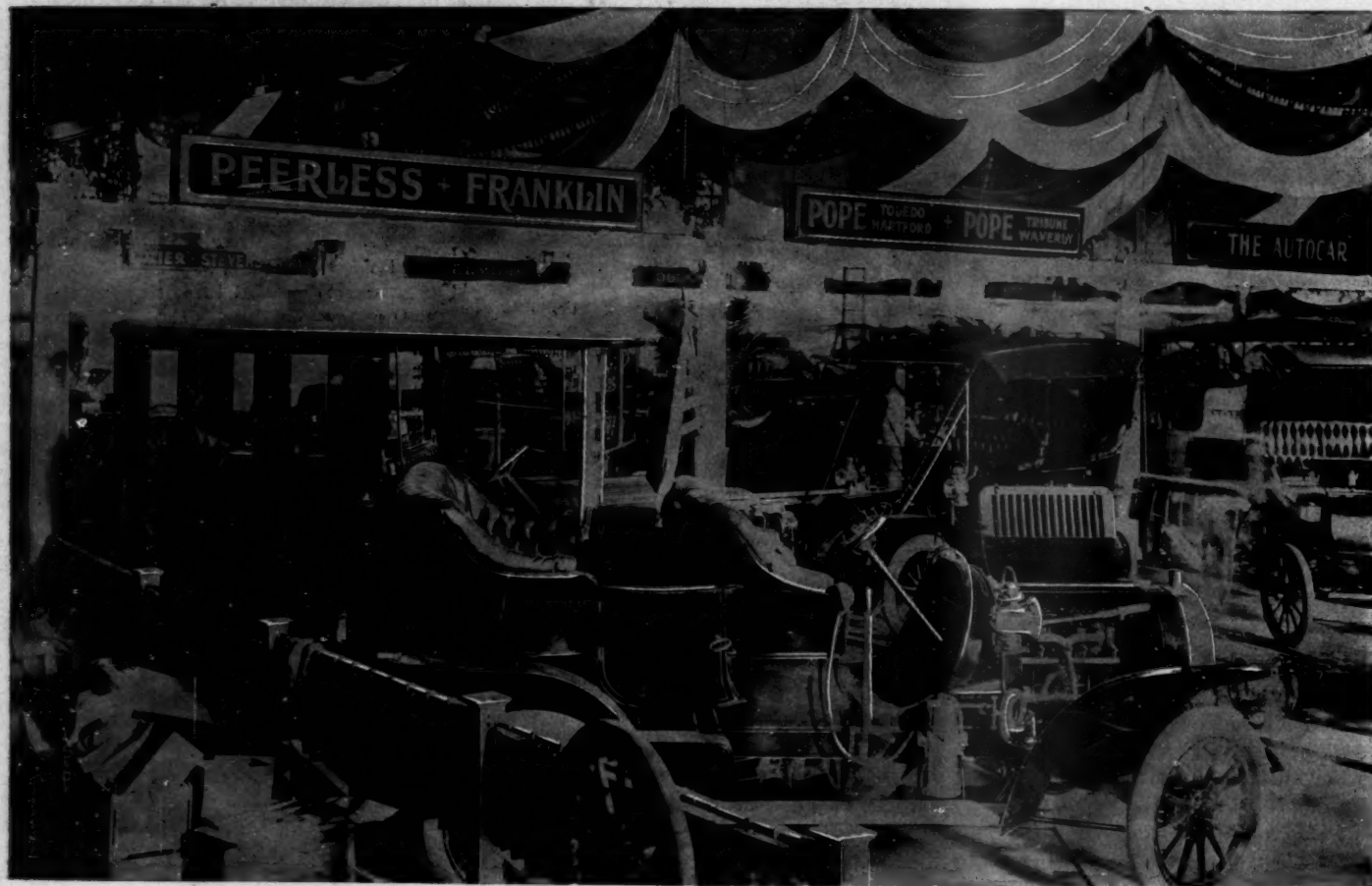
Automobile Co., which handles no less than six lines of cars; T. B. Jeffery & Co., Titman, Leeds & Co., the Reo Motor Car Co., the Foss-Hughes Motor Car Co., the Autocar Co., the Eastern Automobile Co., and other large concerns handling several lines, with numerous models of each, contented themselves with an absolute minimum of space in order that as many as possible of the city's branch houses and agencies could be represented. The result is that twenty-one of the largest local establishments are stowed away in the twenty-eight spaces, each 17 by 24 feet, which occupy the center of the main hall. Around the walls are ensconced eighteen other exhibitors of cars—the number of different ones exhibited under the armory roof totaling fifty-nine. It is said that in this

tured the honors in class B in the recent endurance run of the Quaker City Motor Club, reposes in all its carefully-preserved mud, while the star feature of the Titman-Leeds Co. exhibit is the big mud-encrusted Matheson, driven by Mongini, which, although disqualified for a minor infraction of the rules regarding touring equipment, was the only car to finish without a demerit in class A of the Quaker City Motor Club's contest.

Every cloud has its golden lining, and there is one great advantage the armory has to compensate for its shortcomings as regards size, and that is its location, which adds as greatly to the demonstration facilities. All the big Row concerns are within 3 minutes' walk, and prospective customers can be given trial trips with

have been experienced in getting the exhibition cars into that building without holding up regular traffic. Many of the exhibitors have prepared tickets, which are issued to prospective buyers.

One feature of the show which attracts attention is the invasion of the local field by foreign manufacturers. One year ago the foreign cars represented here could be counted on the fingers of one hand. Now almost every one of the better-known ones has a representative here. Among those shown in the armory are the Darracq, Mercedes, Fiat, Rochet-Schneider, Hotchkiss, Renault and de Dietrich, while the C. G. V., Benz, English Daimler, Isotta-Fraschini, Panhard, Simplex and Riviera cars are represented among the demonstrating machines outside at the curb.



GENERAL VIEW OF THE QUAKER SHOW HALL, SHOWING ARRANGEMENT OF EXHIBITS

respect none of the national shows, with the possible exception of that at Chicago, can claim as much. Beneath the balcony in the main hall thirteen exhibitors of accessories are accommodated, while in the various company rooms are eighteen others—making sixty-nine separate exhibits.

At the Locomobile stand a vacant space shows where the racer driven by Joe Tracy in last year's Vanderbilt cup race is to be installed. The car was shipped from New York on December 29, but has been lost in transit. The de Dietrich, which finished third in that contest, with Duray, its driver, is a feature of the exhibit of H. A. Rowan, Jr., & Co., local agents. At the Autocar booth the runabout which cap-

little or no trouble or waiting. Indeed, it was this very advantage which decided the committee to select the armory as against the several other possibilities, much farther from the city's center and the Row. Broad street is sufficiently wide to accommodate all the regular traffic and the unusual motor car travel of show week without inconveniencing any class of wheeled vehicle users. Had some of the other buildings under consideration been selected—the old Sharpless department store at Eighth and Chestnut, for instance—demonstrations would have been impossible, owing to the comparatively narrow streets and the trolley traffic on both thoroughfares. Indeed, difficulty would

Novelties are few and far between. Possibly the most notable car in this respect is the Autocycle, which, as its name indicates, is a combination of the motor car and motor cycle. This machine is exhibited by the Vandegrift Automobile Co., a Philadelphia concern, and is intended for doctors, salesmen, parcel delivermen, distributors, etc., for it weighs but 380 pounds and is designed to carry its own weight in passengers over ordinary roads. It is equipped with a 6-horsepower two-cylinder air-cooled motor.

On Thursday the committee has scheduled a night carnival, which promises to be one of the show week's most striking features. The three divisions into which

the huge parade will be divided—limousines, touring cars and runabouts—are already well filled, and as entries will remain open till Wednesday night it only remains for the weather clerk to be lenient to assure Philadelphia the longest procession of motor cars ever witnessed here. Many of the contestants for the numerous handsome prizes are already at work decorating their cars, and some wonderful electric and floral effects are promised. The line of march will be so arranged as to finish in front of the armory at 10 o'clock, just when the show closes for the night. From all indications the judges will have their work cut out for them. Afternoon and evening concerts by Kendle's First regiment band will give a musical setting to the show which enhances its attractions. Being near the hotel district, exhibitors are well situated as regards accommodations, all the big caravansaries being within 5 minutes' walk of the armory.

The White company has adopted aerial advertising during show week. Three huge box kites daily carry aloft a huge white banner setting forth the merits of the steamers. At night a search light is trained from time to time on the outfit, and the public can't help seeing the high-flying pennant.

At the stand of J. A. Reteneller & Son, local representatives, in one of the company rooms, the process of construction in use at the Ajax tire factory is shown from time to time, a force of experts being on hand to explain each feature. Another tire exhibit which attracts no little interest is that of the Newmastic company, where O. A. Parker discourses on the merits of this compound which, when forced into tires under pressure, renders punctures and cuts negligible quantities. A demonstration of the ability of newmastic to withstand heat is given with the aid of a small gas oven in which cross-sections of filled tubes repose without liquefying.

The Thomas car entered by E. R. Kelly



MAYOR WEAVER, WHO OPENED THE SHOW



GLIMPSE AT THE PHILADELPHIA SHOW DECORATIONS

in the recent endurance run of the Quaker City Motor Club, and which covered the second day's journey without a penalty, is making an impromptu try for a non-stop record. Leaving Harrisburg about 8:30 Wednesday morning, its engine has been running constantly ever since, a non-stop run of 100 hours having been scored at 12:30 p. m., Sunday. Four-hour relays of operators are running the car, and Aubrey H. Martin, of the firm of Martin & Hart, local Thomas agents, hopes to keep the engine pegging away all this week up and down Broad street to and from the show, and afterwards run the car to the New York show. Some difficulty is expected when it is attempted to cross the ferry from Jersey City with the engine running, but Mr. Martin says he's going to try it anyway.

One of the finest exhibits in the show is that of the Quaker City Automobile Co., despite the fact that it represents no fewer than six different makes of cars, and can find room for but one model of each, whereas a full representation would have required space for no less than thirteen separate and distinct types. However, the close proximity of the company's big salesrooms and garage—but a block distant, on the opposite side of the street—minimizes any bad effects of the handicap. The Autocar Co., which managed to secure two spaces, is enabled to show its complete line of pleasure cars, although a rakish-looking delivery car, fresh from the factory, is compelled to waste its sweetness on the desert air of the company's new salesroom and garage, a block down the street. The exhibit of W. J. Sprankle, local Reo, Premier and Hotchkiss agent, is also comfortably housed, no less than seven cars, including the Baby Reo, being crowded into the two spaces Sprankle was

enabled to get by reason of the size of the line he handles. The Hamilton Automobile Co., handling the Stoddard-Dayton; the Motor Shop, representing the Oldsmobile and the Stearns, and W. J. Smith, president of the local trade association and manager of the Philadelphia Rambler branch, were also fortunate in securing sufficient space to make an adequate display. All the others are crowded.

A feature of the display of the Eastern Automobile Co., which handles the Stevens-Duryea and the Lozier, is the handsome \$500 MacDonald & Campbell silver loving cup won by the first-named car in the recent endurance run.

The size of the armory has compelled not a few of the lucky exhibitors who managed to secure space inside to resort to the expedient of running a supplementary exhibit outside on Broad street. Among these are the Knox people, who are showing the Glidden tour truck, appropriately labeled, etc.; C. W. Sprague, the local Dolson agent, but who could not find room for the Reliance truck and touring car, which he also handles. The Golden Dragon, which made the first alcohol run of the year, could not find a resting place in the regular Dragon booth, and was also relegated to the curb, as was the Pungs-Finch, handled by the Rittenhouse garage.

Those concerns, on Broad street and elsewhere, which failed to get in, also are doing a curbstome business. Among these are the Dalsimer Motor Co., which handles the Haynes; William Gildmore, local agent for the Deere; the Penn Motor Car Co., which handles the Mitchell; the Phil-Penn Motor Co., Philadelphia representative of the Frayer-Miller; Wurster & Co., representing the American; the Froga Automobile Co., handling the National; and the Bergdoll-Ambler Co., which ex-

plotts the Welch machine in Philadelphia. Company B room has been appropriated by the two-wheelers, and they have a little motor cycle section of their own. Here flock the quaker enthusiasts in large numbers daily, and although but three concerns are included—the Reading Standard, Bradley and Simplex—the display is quite creditable. The Bradley company, a Philadelphia concern, is featuring its double-cylinder 6-horsepower machine, while the Reading Standard's tandem, with single 3-horsepower motor, is coming in for a lot of attention from the local motor cycle contingent.

Some of the accessories people who were relegated to the second floor company rooms rebelled on the ground that few of the visitors found their way above the main floor. The management hustled around a little, and by crowding the other fellows a trifle managed to install them in odd corners in the first floor rooms. The full list of exhibitors of motor cars and accessories is as follows:

COMPLETE CARS, MAIN HALL

Kelsey Motor Car Co.—Maxwell, Mora
Quaker City Motor Car Co.—Pope-Toledo,
Pope-Hartford, Pope-Tribune, Pope-Waverley,
Franklin, Peerless

Winton Motor Carriage Co.—Winton
Autocar Co.—Autocar
White Sewing Machine Co.—White steamers
W. J. Sprangle—Reo, Hotchkiss, Premier
Hills Motor Car Co.—Royal Tourist, Rochet-Schneider
Ford Motor Co.—Ford
T. B. Jeffery & Co.—Rambler
Foss-Hughes Motor Car Co.—Pierce, Cadillac, Baker electrics
Keystone Motor Car Co.—Packard, Buick
Diamond Motor Car Co.—Cleveland
Brazier Automobile Works—Marmon
Eastern Automobile Co.—Stevens-Duryea
Lozier
T. M. Twining—Crawford, Marion
Gawthrop & Wister—Elmore
Motor Shop—Oldsmobile, Stearns
Hamilton Auto Co.—Stoddard-Dayton
Martin & Hart—Thomas
Titman, Leeds & Co.—Studebaker, Matheson
Mercedes Import Co.—Mercedes
H. A. Rowan, Jr., & Co.—DeDietrich
Knox Automobile Co.—Knox
Rittenhouse Garage—Pungs-Finch, Wayne
Stehle Co.—York Pullman
C. W. Sprague—Dolson
South Broad Auto Co.—Dorris
Y. W. Ralph—Moline
Carter Car Co.—Cartercar
Prescott Adamson—Columbia
Stanley Steamer Agency—Stanley
H. O. Brown Motor Car Co.—Berliet
International Motor Car Co.—Darracq,
Walter
J. L. Keir—Renault
Spencer-Winkle Motor Co.—Glide, Compound,
Jackson
Vandegrift Automobile Co.—Autocycle
Dragon Automobile Co.—Dragon

Dalley & Barrows—Flat
Penn. Auto Motor Co.—Pennsylvania

ACCESSORIES, MAIN HALL

Autolight & Motor Supply Co.—Accessories
Penn. Petroleum Co.—Lubricants
Michelin Product Selling Co.—Michelin tires
John C. Lees, sales agent—Vacuum oils
Penn. Automobile Supply Co.—Accessories
Rose Mfg. Co.—Lamps
J. L. Gibney & Brother—Accessories
W. C. Robinson & Son Co.—Lubricants
Philadelphia Automobile Accessories Co.—Accessories
Columbia Lubricants Co.—Monogram oils
George W. Nock—Accessories
Pennsylvania Rubber Co.—Pennsylvania clincher tires

COMPANY ROOMS

J. A. Teteneller—Ajax tires
Merchant, Evans & Co.—Clutch
Alexander Dow—Punctureproof tire
Pneumatic No-Puncture Wheel Co.—Punctureproof wheel
W. S. Jones—Motor car specialties
Bradley Motor Cycle Co.—Motor cycles
General Electric Co.—Electric appliances
C. F. Kellum & Co.—Invader oils
Newmastic Tire Co.—Accessories
J. N. Quimby—Motor car bodies
Stackpole Battery Co.—Batteries and coils
Kelm Saddlery Co.—Sundries
Charles E. Miller—Accessories
A. T. Wilson—Simplex motor cycle
Brown Automobile Top Co.—Tops
Puritan Soap Co.—Soaps
Reading Standard Cycle Co.—Motor cycles
Manufacturers' Supply Co.—Accessories

MADISON SQUARE GARDEN SHOW NEARLY READY

New York, Jan. 6—Final preparations for the opening of the annual show of the association of Licensed Automobile Manufacturers, which begins at Madison Square garden Saturday night and which will continue during next week, started today. With the abandonment of the amphitheater at midnight by the poultry exhibitors of last week the work of hauling into the garden of the statuary, rustic work, pictures and tons of decoration material so they might be ready for the varied army of decorators began. The preparatory work, however, has been in progress for 3 weeks. Two weeks ago the flooring was laid and the elevated and mezzanine platforms were erected over the boxes and seats. Men have also been busy for a week in the basement cleaning and painting and covering pillars and walls with pictures and tapestries. The show committee is confident that all will be finished in time for the private view to the newspaper men, which is set for noon on Friday.

The coming show will be the second to be promoted by the association of Licensed Automobile Manufacturers and the seventh to be held in Madison Square garden. The first garden show was held November 3-10, 1900. It and the second show were promoted jointly by the Automobile Club of America and the Madison Square Garden Co. In January, 1903, the national association of automobile manufacturers was added as a co-promoter and continued as such until the A. L. A. M. secured in 1905 an exclusive lease for 3 years of the garden for motor car exhibition and purposes, permitting its first show January

13-20, 1906. At the forthcoming show there will be 265 exhibitors all told. There will be forty-two makes of American and twelve makes of foreign cars displayed by thirty of the thirty-two members of the A. L. A. M. and all seven members of the importers' branch of the Selden patent licensee organization. Eight electric vehicle, twenty tire, five body and seven top manufacturers are to be included among the exhibitors. The motor and

BOSTON'S OUTLOOK GOOD

Boston, Mass., Jan. 5—Chester I. Campbell, manager of the Boston show, has gone on a trip through the west in order to consult decorators regarding the scheme to be employed in fixing Mechanics' hall for the annual show there. Mr. Campbell said he expected to visit Chicago on his tour and may close contracts with a firm in that city for decorating the exhibition buildings inside and out. Within a few hours of each other early this week contracts were signed by the owners of two estates in the back bay in Boston for the building of motor structures. The two buildings will be within a few hundred feet of each other, one on Huntington avenue nearly opposite Mechanics' hall and the other a few rods away but within a block of the show hall. Work will be rushed on both buildings and it is rumored that if they are sufficiently finished before the March show part of the floors of each place will be utilized for the overflow of cars seeking admission to Mechanics' hall but which now it is impossible to accommodate.

accessories manufacturers will have a complete display of their products. It is noteworthy that all the complete car makers will show four-cylinder models and that seven of them, of whom four are importers, also will exhibit six-cylinder cars. Single, double and three-cylinder cars will also be shown, and one manufacturer—the Hewitt Motor Car Co.—will present an eight-cylinder machine. The official list of cars that are to be shown is as follows:

Gasoline cars—Apperson, Autocar, Buick, Cadillac, C. G. V., Corbin, Clement-Bayard, Columbia, Darracq, de Dietrich, Decauville, Elmore, English Daimler, Fiat, Franklin, Haynes, Hewitt, Hotchkiss, Isotta-Fraschini, Knox, Locomobile, Lozier, Matheson, Northern, Oldsmobile, Packard, Panhard, Peerless, Pierce Great Arrow, Pope-Hartford, Pope-Toledo, Pope-Tribune, Renault, Rochet-Schneider, Royal-Tourist, S. & M. Simplex, Stearns, Stevens-Duryea, Studebaker, Thomas, Walter, Waltham-Orient, Winton.

Electric carriages—Babcock, Baker, Columbia, Columbus, Gallia, Pope-Waverley, Studebaker.

Commercial vehicles—Knox, gasoline; Studebaker, electric; Northern, gasoline; Pope-Waverley, electric; Franklin, gasoline; General Vehicle Co., electric; Electric Vehicle Co., electric; McCrea Motor Truck Co., Champion electric; Hewitt, gasoline.

A feature of the show will be the exhibition of not a few of the cars which competed in or were built for the last Vanderbilt cup race. They will include the Darracq, which won; the Fiat, runner

up; the de Dietrich and Bayard, which finished in the first flight, and the Locomobile, Pope-Toledo, Apperson and Matheson. The exhibition will again be departmentized. Gasoline pleasure cars will monopolize the main floor and elevated platform of the amphitheater; electric pleasure vehicles, the hall to the right of the foyer; and machinery and accessories, the concert hall, galleries, mezzanine platform and basement, commercial vehicles being also added to the basement exhibit.

Beautiful as was the scheme of decoration last year, which sought to give the illusion of an Italian garden and well succeeded, S. R. Ball, the official decorator, promises this year something far more beautiful, effective and costly. In a trip abroad for the purpose he gathered many decorative ideas, which are to be embodied in the reproduction of a Swiss palatial garden. It has been entrusted to Arthur N. Jervis, who has been dubbed the Rudyard Kipling of motor car journalism and is serving as the official press agent of the show, to voice the promise of the show committee and the decorator as to the tout ensemble. Jervis declares "the coloring will be so vivid, varied and harmoniously distributed as to elude description in black and white, but some idea of the ensemble may be achieved by those who can picture in mind a palatial Swiss garden in the late fall, or early winter. Beneath an amber sky, spangled with pale, silvery stars that blink a good night to the sinking sun, all the mellow and flaming glories of autumnal foliage are playing hide and seek about rustic arbors, and the coloring is reflected upon pure white statuary and in plashing fountains; the green sward of the garden is delicately flecked in white by the first desultory flakes of a snow flurry, sent to tell of

DEALERS WIN POINT

Kansas City, Mo., Jan. 5—The show March 4 to 10 will be in charge of an advisory committee appointed by the dealers' association, although a private organization will have charge of the details, subject to approval by the dealers. The dealers will get 50 per cent of the net profits, pro rated according to the space they occupy. This ends a fight which has been waged for recognition by the dealers and in which they have been eminently successful. It also has resulted in the formation of an effective association, something the Kansas City trade has needed for a long time. Next year, according to the agreement made with the promoters of the show, the event will be entirely in charge, in all details, of the dealers. For this year, space has been liberally taken in Convention hall, of more than ample size to accommodate all exhibits of cars and accessories.

the approach of winter; in the perspective, on all sides, is Alpine scenery, with hamlets snuggling between snowy peaks, and mountain lakes gleaming in the lingering, refracted rays of the sunset hour."

The iron girders overhead will be concealed by a canopy of amber hue, in which will twinkle 37,000 silver stars. The floor will be covered by a specially woven green carpet flecked with snow flakes. The side walls will be hung with landscape paintings to give a perspective. Occupying the whole Fourth avenue end will be an Alpine scene on a monster canvas. A rustic arbor will extend through the center of the main floor and the stairways will also be of rustic work. There will be disposed at effective points statues symbolic of "Triumph," "Mercury" and "the Goddess of

the Show," but the decorative piece de resistance will be the great fountain facing the entrance. It will be 20 feet across the base and 18 feet in height. It will have three basins and its several jets will be illumined by colored electric lights. A nymph holding a dolphin and surrounded by sea-children will be the centerpiece. At either side will be other allegorical statues of heroic size. The decorative scheme for the concert hall will be Persian; for the basement, Dutch; and for the electric hall, the same as that of the main floor. At the entrance will stand two attendants in uniforms which have been copied from those of the Swiss guards at the Vatican. It may interest the likely-to-be hungry and thirsty to be informed that a capacious rathskeller and grotto are to be established in the basement. The rathskeller will be decorated with English paintings and panels of Spanish leather, hand-tooled and depicting various scenes.

A number of conventions, meetings, banquets and social gatherings are scheduled for the week. Show week festivities will begin with the trade smoker at the New York Motor Club Sunday night. On Monday and Tuesday there will be meetings of the mechanical branch; on Monday, a meeting at the New York Motor Club to discuss Georges Dupuy's scheme for an American tour of Europe; on Wednesday, the annual meeting of the N. A. A. M.; on Thursday, the annual banquet and vaudeville entertainment of the Hyatt Roller Bearing Co. at the Hotel Astor; and on Friday the annual meeting of the A. A. A. The show will open at 8 o'clock on Saturday and will be open day and night until 11 o'clock the following Saturday night. On Tuesday and Thursday the admission to the garden will be \$1, while on other days it will be 50 cents.

MINNEAPOLIS HOLDS TIRE AND ACCESSORY SHOW

Minneapolis, Minn., Jan. 5—Several striking novelties were the center of interest at the tire and accessory show given in the rooms of the Minneapolis Automobile Club this afternoon and evening. Foremost among them were the Shattuck positive variable transmission gear and the Shattuck non-skid chain, inventions of W. P. Shattuck, of Minneapolis, and which probably will be ex-

hibited at New York and Chicago; the Evans electric vulcanizer, a new Minneapolis product; an emergency wood rim for pleasure cars, the invention of Dewitt Nelson; and a repair for blow-outs, exhibited by H. J. Miller, of the Fenstermacher company. None of the northwestern tire representatives who had agreed to go into the show was allowed to exhibit. As a result, the exhibition was cut from 3 days to 1, and the displays were limited to local houses. The L. H. Fawkes Co. exhibited M. & W., G & J, Fisk, Diamond, Hartford and Dunlop tires, the Marsh detachable rim, Woodworth tire covers and non-skidders, Weed chain grips and Gilbert covers. O. Fenstermacher & Co. exhibited every stage of tire repair and vulcanizing, their exhibit being particularly interesting. The J. N. Johnson company exhibited a full line of tire repairs and methods, together with accessories of every description. The Evans vulcanizer was shown by C. C. Evans, the inventor.

Eastern territory on this accessory was disposed of at the New York show to William P. Miller & Sons, New York; and a representative of the Hine-Watt Mfg. Co., of Chicago, was in Minneapolis to close up western territory with the inventor. Mr. Evans is president and manager of the Evans Motor Car Co., of Minneapolis. Saturday evening the exhibition was concluded with a lecture.

HARMONY IN BALTIMORE

Baltimore, Md., Jan. 5—Members of the Automobile Club of Maryland, have decided that the show shall be held under the club's auspices at the Lyric from January 21 to 26, in conjunction with the dealers, so everybody is happy and harmony reigns supreme. General Manager B. R. Johnson is greatly encouraged over the numerous applications for space that have been received at this time and expects to have a successful show.

SMOKY CITY NOW IN LINE

Pittsburg, Pa., Jan 4—Twenty-five of the twenty-six local dealers will have exhibits in the show in Duquesne garden April 7-13. Headquarters for the show affairs have been established at the offices of the Standard Automobile Co. in Baum street, East End, and preliminary arrangements are progressing finely. The show committee is composed of W. H. LaFountaine, Earl Kiser, W. N. Murray and Thomas I. Cochrane.



NH Van Sicklen, Manager

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SHOWS IN THE LIMELIGHT

THIS is show season—there are big shows and little shows all over the world, and the people flock to them in droves. The public is not learning about motor cars—it has learned already and it is in a buying mood—it has the money and wants to part with it. It not only wants the latest thing out, but it wants something that will be of material benefit to the pleasure, the health and possibly the pocketbook of the user. New York has had one taste this season, Philadelphia is at the table and the Gothamites are smacking their lips again in anticipation. Big cities and little cities are to have shows and the public will see that they are patronized, not alone to see but to buy, for the money is in hand for the purpose. New York's show, which opens Saturday of this week, will be grand—it will be a society event, a business proposition, a school and an art gallery all in one—it will be the real thing in dead swell shows. It will be watched by those makers who exhibited at the previous New York show and by those who promoted that affair, for there is still some question as to the time for holding shows, and the attendance at this one and that at the other one will have a bearing on the future of all national exhibitions. The makers and exhibitors of accessories will have to be depended upon to a large extent to determine the time of the year when it is desirable to hold shows—they are the ones in a position to know. As a matter of fact all shows are changing—they are not the trade affairs they were a few years ago. There is too much demand for cars for the agent to wait until the show in order to place an order for his season's supply.

MOTOR CAR ACCIDENTS

NOTWITHSTANDING the fact that the number of motor cars in use by the public is growing at the rate of a thousand a week, it is a fact that the actual number of accidents that may be charged to their use is becoming less and from the standpoint of proportion the number is now almost insignificant. An accident caused by a motor car is today rather unusual if the number of vehicles is taken into consideration, notwithstanding the fact that speed is gradually being increased. There are several reasons for this happy state of affairs. Motorists have become more considerate of the public and the public is learning to be watchful; the motorist has learned that reckless-

ness does not pay and that there is nothing in grand stand play; people have come to the conclusion that motor cars are not such bad things and wish they might be included in the ranks of owners—they perhaps have had a little taste of the joys of motoring. Even the press has become reconciled. All this is of extreme satisfaction to all motorists as well as to the public, but the fact that the comparative number of accidents due to the motor car is becoming less as each month appears is the most gratifying part of the whole matter—to the public, the press, the motorist, the maker and the dealer.

CRYING FOR GOOD ROADS

TIME works wonders—it is the greatest enemy of prejudice. Time is gradually undoing prejudice so far as it relates to the motor car, to motoring and to motorists. Time has been a long time making the least impression, but now its accomplishments may be recorded by the score, whereas a few years ago there was only an occasional flash. This is shown by the attitude of the farmer and the metropolitan resident non-motorist; it is also shown by the attitude of public officials all over the country. No better illustration of a change of attitude on the part of the public can be offered than by calling attention to the report of the state highway commission of Massachusetts, which has recently just come out unequivocally in support of the motor car as a thing of the present and of the future. There has been more or less complaint that motor cars tend to destroy road surfaces, and while the truth of the charge must be admitted it is not admitted that there is just reason for complaint. The state highway commission referred to admits—even knows—that motor cars destroy road surfaces, but it takes a logical view of the matter and points out that roads are made to use by the public and not necessarily by owners of horse-drawn vehicles alone; it realizes that ordinary vehicles have been responsible for destroying roads which the public had to pay for; it realizes that the motor car is as much a fixture as is the horse or the vehicle he drags along over the highways; it realizes that if the roads are so easily destroyed by motor cars that they are not what they should be and that, because of the changed mode of travel, they must be changed to meet a new condition. The commission does not blame motor cars for destroying road surfaces—it realizes that the road surfaces are not what are required now and that they must be changed to meet

conditions as they exist. It will be admitted that this is certainly a liberal view to take, yet one that is only in keeping with the march of progress. If this view shall be taken by others interested in the highways, then an epoch of road making will have been commenced at no late date. The demand for good roads, to say nothing of decent ones, is being made in all parts of the country—it is becoming nearly universal. Motorists are not the only ones who demand decent highways—the world is learning their necessity and is demanding that some of the money that is sent into municipal, county and state treasuries shall be returned to the givers through the medium of improved highways—a demand that must be heeded. It will be heeded; it is too loud a wail, too distressing a commercial cry to which to turn an ear stuffed with cotton. The cry of the people has been heard by governors and the governors are now crying aloud to the legislatures. The cry to these bodies must be in stentorian voices; it must be a distress call before they will hear it.

SIGNS OF THE TIMES

SIGNS are not wanting that the motor car is rapidly being recognized by the United States government as the twentieth century method of transportation. But it has been an uphill fight to secure this recognition. As far back as last spring it began to dawn upon the motorphobes that government officials were inclined to be friendly to motoring. The postmaster general gave his permission for the rural free delivery carriers to use motor cars in traveling their routes if they so willed. Through the summer there were other signs; the army took up the motor cars in its maneuvers; the commanding generals found it a handy and fast means of locomotion—and so on all down the line the motor car crept into popular favor. All of this can be regarded as straws showing which way the wind blows. Another straw was discovered this week when the announcement was made from Washington that the annual report of the first assistant postmaster general speaks highly of the utility of the motor car in the postal service, the paper telling of the successful innovation introduced during the summer of using motor cars for the collection of mails in large cities and promising that during the approaching summer the experiment will be tried in other cities. What stronger commendation can the motoring fraternity ask? Who knows—maybe even the army mule may have to be sent to the pasture.



CURRENT COMMENT



VERMONT law makers have kept up with the procession by enacting some new motor car legislation that is rigid enough to satisfy almost any motor-phobist if the new law is enforced. It has the customary speed regulations, that are not so unreasonable if the motorists are given a little latitude, but the fines to be imposed are severe and suggest that Vermont either needs the money or is playing to the galleries. It might be suggested that if those arrested for committing some crimes against the public were to be soaked as heavily as it is proposed to soak motorists, Vermont would turn out to be a pretty decent state. The licensing portion of the new law, however, is the particularly bright point that should bring out objection. This provides for a driver's license fee and a tax according to the power of the car in addition—in other words, a double taxation scheme that is clearly unconstitutional. In addition it is more than likely the local taxing bodies of the state will take another fall out of the motorists, so that to own a motor car in the Green Tree state will become a luxury in fact. If the motorists of the state stand for all this they certainly can be put down as lacking even a little backbone.

INCIDENTALLY some of the little hamlets of Massachusetts that have been making their own motor car regulations have had a setback that will require a lot of new lawmaking and, in all probability, a lot of trouble. A recent decision practically says all town and city regulations

WEEK'S NEWS IN BRIEF

Massachusetts highway committee in annual report, says if present highways cannot stand motor traffic roads should be reconstructed.

Madison Square garden in hands of decorators, who are putting Swiss touches to big building for opening Saturday night.

C. W. Kelsey, back from Paris salon, tells of motor ideas picked up during his visit to show and through French factories.

Stevens-Duryea six-cylinder car wins Quaker City Motor Club's reliability test; penalized one point as result of protest.

Despite cramped quarters Philadelphia's show is brilliant display, sixty-nine exhibitors taking part; street show a feature.

Vanderbilt cup cars not expected to take part in races at Ormond meet, entries to which close Saturday.

Al Poole tells of recent alcohol test made by Tracy in Dragon from New York to Philadelphia.

Louis Wagner, bringing with him Vanderbilt cup, arrives in New York from Paris.

Hartford motorists to ask Connecticut legislature for a special highway.

Dealers win their point and will have interest in Kansas City show.

Minneapolis Automobile Club holds successful 1-day tire show.

passed prior to the act of 1906 are no longer in force and that the motor car law of 1906 is not an amendment to any other law or laws, but a new one entirely. This rather mixes matters, for the many towns and cities of Massachusetts and the state highway commission have been under the impression that this law was not so far reaching as Judge Gaskill of the Middlesex superior court says it is. There will be a wholesale ordering of new sign posts and the towns throughout Massachusetts may begin all over again. Possibly they will have seen things in a different light when they tackle the motor car matter again and that they will do better next time they make laws.

AMERICAN makers and designers will find much to interest them in what C. W. Kelsey, of the Maxwell-Briscoe company, says about what he saw in Europe. There is one good thing about Mr. Kelsey—he seems to have been perfectly fair, realizing that the French maker is still in the game, but at the same time believing that America is not only holding its own but getting ahead a little. No man can go abroad without coming home with some good ideas, and the same may be said of those who visit this country. It does one good to get out and rub elbows with another people; it sets another lot of brain particles in motion and tends to take a little conceit out of a man. No hint here, Mr. Kelsey, however. It narrows a man to keep himself in his own little sphere, so that if some of the others interested in the motor car industry were to do a little visiting and a little observing, a profit would eventually accrue. Among other things Mr. Kelsey found what many American makers should have known long ago—that it is folly to put out a first-class car without using a magnet for current supply; as a matter of fact, there is one place wherein American makers have been backward.

WITH all respects for Joe Tracy and his knowledge and reputation for all things pertaining to the motor car, it cannot be said he made much by attempting to run a car from New York to Philadelphia using alcohol for fuel. In the first place, as is admitted, the preparations were lacking—in fact, there were no preparations, no experimenting. Reading the story of the trial as told by Tracy's companion, Al Poole, one is apt to believe the trip was made with a view of advertising gasoline rather than testing alcohol. The impression has gone out that it cost

something like \$37 for fuel for a 90-mile trip where alcohol was used. As a matter of fact, the lack of preparations was responsible for the loss of a goodly share through a leak in the fuel tank—a leak that was known to exist, by the way. Besides, what little record was kept was so carelessly maintained as to be of no material value, and as a result alcohol receives a knock and Rockefeller a boost. Furthermore, any car could not be benefited by a test that was a rank failure in all respects. In addition, the talk credited to both Tracy and Poole as to the merits of alcohol is so widely apart from the statements given out by well-known authorities who have experimented with the liquid as to be of little value to those contemplating the use of this kind of fuel. As matters stand it were better the test were never attempted.

HOLDING economy tests in the dead of winter is becoming fashionable, and while there is more or less discomfort for the participants, this is more than offset when a good showing is made, for an economy test in the winter and one in the summer are quite different—in the matter of personal comfort and in the relative value of the test itself. Such an affair tests the ability of the operator as well as the car itself, so that if both can go through without trouble it is all the more to the credit of the combination, for a good car cannot survive in the hands of a poor operator, and a poor car can never do duty in the hands of the best driver in the world, no matter who he is.

COMING MOTOREVENTS

January 12-19—Seventh annual show of Association of Licensed Automobile Manufacturers, Madison Square garden, New York.

January 21-26—Baltimore's second annual show. B. R. Johnson, manager, Piper building.

January 22-27—Annual Ormond-Daytona beach meet, Florida East Coast Automobile Association.

January 28-February 2—Washington Automobile Dealers' Association show in Dupont garage, Washington, D. C.

February 2-9—Chicago show, Coliseum and First regiment armory. S. A. Miles, manager, 7 East Forty-second street, New York.

February 11-16—Tri-State motor car show, Light Guard armory, Detroit. Tri-State Automobile and Sporting Goods Association; E. E. McMasters, manager.

February 16—Italian motor car exhibition, Turin.

February 18-23—Buffalo show, in Convention hall, Automobile Club of Buffalo. D. H. Lewis, manager, Teck building, Buffalo.

February 23-26—Automobile Club of Italy, Coupe des Voltures.

March 9-16—Fifth annual show of Boston Automobile Dealers' Association, in Mechanics' hall and Horticultural hall. Chester I. Campbell, 5 Park square, Boston, manager.

BROAD MINDED ON ROAD QUESTION

Massachusetts Commission Says if Motor Cars Destroy Surface Change in Construction Is Necessary—Missouri Clubs Favor Employment of Convict Labor by State

Boston, Mass., Jan. 7—The annual report of the Massachusetts highway commission now is in the hands of the printer, but the gist of it is known here in Boston. It is gratifying to learn from a peep at the document that motoring shows a gratifying increase in 1906, 6,572 motor cars and 666 motor cycles having been registered and licensed, while in addition manufacturers and dealers took out 151 tags. The revenue from this source amounted to \$15,986. During the year 4,649 ordinary operators were licensed, 3,391 professional chauffeurs were put on the books, while 2,043 professional drivers renewed their licenses. The total for registering and taking out licenses amounted to \$38,087.50. The department spent \$13,500, leaving a balance of \$19,587.50. During the year the commission revoked twelve licenses and suspended eleven licenses and four certificates of registration, showing its activity.

The interesting part of the report, from a motoring standpoint, is the broad-minded way the commission handles the road question. It finds that motor cars are harmful to the highways, but instead of condemning them for it, the members of the board come out boldly and declare that if the roads are not built right to accommodate motor car traffic that a change in construction should be made at once. The report says: "Perhaps the most important discovery of the year is the extraordinary destructive effect upon stone roads of the large number of swiftly moving motor cars. Practically all of the main roads are thus affected. It has been noted that the binder is swept from the road, the No. 1 stone— $\frac{1}{2}$ -inch to $1\frac{1}{2}$ -inch size—is disturbed, in some instances standing on the surface and in other cases left in windrows along the roadside. The number of motor cars has rapidly increased during the year and this increase will, in the opinion of the commission, continue indefinitely. The commission is satisfied that a material change in the method of maintaining stone roads must be made. While the old methods have proved satisfactory in the past, they fail under the present usage. The motor car apparently has come to stay and it must be reckoned with. The commission believes if the roads fail under the changed traffic they must be treated in a different manner, even if the cost of maintenance be largely increased. It must be borne in mind that this excessive wear of stone roads by motor cars is not confined to Massachusetts. Reports from the newspapers and from the United States office of public roads show that the same trouble is experienced in all parts of the

United States. The roads of England, France and other countries of Europe are also showing signs of destruction by the same agency."

In 1906 there were 47.92 miles additional layouts of state road, bringing the total to 670.37 miles. Forty-five miles of road were finished, making 655 miles of finished state road. Under the "small town" act the commission has improved 108.23 miles of road since 1900.

WANT CONVICTS TO WORK

St. Louis, Mo., Jan. 6—The Automobile Clubs of St. Louis, Kansas City, St. Joseph and Sedalia have endorsed the project of the Missouri Good Roads Society to have the present legislature enact a law under the provisions of which the convicts in the state prison at Jefferson City will be put to work constructing and improving the public highways. All the able-bodied convicts are now leased to prison contractors at 60 cents per day, and the penitentiary is a self-supporting institution. The theory of the Missouri Good Roads Society is that the convicts ought not to be worked in competition with free labor. Of the 2,054 convicts now in prison, three-fourths of them are able-bodied and work in shoe and saddle-tree factories. The object of the society is to have them put to work constructing macadam roads, first across the state from St. Louis to Kansas City, and then on a crossroad from north to south. The society has prepared a statistical table showing the cost of convict-made roads in the states of Florida, Georgia, Kentucky, Louisiana, Mississippi, North and South Carolina, Tennessee, Texas and Virginia. These figures show that convict-made roads cost less than one-third the cost of roads built by hired labor. In these states, it is argued, the scheme has been successful and practically and satisfactorily has removed convict labor from competition with free labor. Besides the motor clubs a great many other commercial organizations throughout the state have given their approval to the scheme. George E. Vogle, a former St. Louis newspaper man, is at the head of the movement. He circulated petitions among the business men of St. Louis, Kansas City, St. Joseph and throughout the state, and obtained the signatures of thousands of influential business firms and individuals. He has called a meeting in Jefferson City for January 15, at which steps will be taken to lay the matter formally before the legislature and form a permanent organization to carry it to a successful conclusion. It is contended that the cheapest and most practical method of

getting good roads is to have them built by the convicts, who will be handled in temporary prisons with very little more expense than they are at the penitentiary. They will be transported from one part of the state to another in portable prisons, it is announced.

The public highway system of Missouri is almost primeval except in a few counties. The macadam and gravel roads of Pike county, constructed 50 years ago, have been a never-ending source of pride to that section of the state. These were the pioneer good roads in the west, but other parts of the state failed to keep progress with Pike county. Governor Folk in his biennial message to the legislature strongly urged that more attention be given to the public road system and that a highway engineer of skill and experience be provided for by statute.

There is more interest in the good roads movement in Missouri now than there has ever been before. It is likely that some measure will be passed by the legislature looking toward the permanent improvement of the public highway system. Whether the good roads society's scheme of working the convicts on the roads will be crystallized into a statute cannot now be foretold, but strong pressure will be brought to bear on the members to give favorable consideration to the bill.

UNCLE SAM ON GOOD ROADS

Washington, D. C., Jan. 5—In that portion of his annual report relating to good roads the secretary of agriculture says a number of new projects and lines of investigation have been mapped out for the immediate future. Co-operation will be sought with the geological survey for the purpose of indicating the various classes of roads on topographic maps issued by the survey. Co-operation with the post-office department has been begun in order to facilitate rural delivery by the improvement of country roads. This work is of vital importance. The plan, which carries the approval of the secretary of agriculture and the postmaster general, provides that whenever a road upon which a rural route has been or is about to be established is reported by the carrier or inspector to be impassable or in bad repair, the fourth assistant postmaster general will advise the director of the office of public roads of the fact and request that he have an engineer inspector detailed to examine the road and give such advice and instruction to the local officials as may be required. Upon receipt of such information from the fourth assistant postmaster general, the director of public roads will communicate with the local officials and supply them with a copy of the circular of instructions and a blank form for making application for the detail of such engineer inspector. It is not the purpose of the director of public roads to actually construct the road or to make any contribution in money, materials or labor.

In most cases a road is impassable on account of defects which can be remedied by the use of proper methods. The engineer inspector who examines the road will note carefully all such defects and advise as to what steps can be taken to place the road in proper condition without great expense. As the chief aim and purpose of the office of public roads is to bring about a general and uniform improvement of the country roads throughout the United States, a co-operative plan such as the one described above offers the best possible means of achieving positive results in furtherance of that purpose. By this means correct methods of road building and road maintenance will be introduced into practically every section of the country. The engineer inspectors assigned to this work will, in visiting places which have requested assistance of this character, follow an itinerary which will include a number of places in a given territory. A beginning has been made during the past year, and efforts will be made to increase the scope of the work in the future.

GOOD ROADS IN ILLINOIS

Springfield, Ill., Jan. 9—Special telegram—Governor Deneen's message was read today and in it was a good roads paragraph pertaining to the progress of the work of the state highway commission, which reports to the governor the cost of public highways throughout the state to be, for roads, \$4,625,365; for bridges, \$1,788,730. The governor makes the point that sixty-seven county farmers' institutes have requested the commission to furnish speakers to address them upon the subject of road improvement; that twenty-five petitions for the construction of experimental roads have been received and that under the supervision of the commission experimental roads have been constructed at Salem, Greenville, Springfield, McLean and DeKalb, the cost of which has been borne wholly by the local authorities. One hundred and twenty-seven applications for crushed stone have come from fifty-seven counties and it will require 270,000 cubic yards of material to fill these applications. The commission already has distributed about 40,000 cubic yards of crushed stone throughout the state.

HARTFORD WANTS HIGHWAY

Hartford, Conn., Jan. 6—The legislature of the state of Connecticut, which convened last week, will be asked to issue a charter to a company composed of Hartford motor interests for the right to build and maintain a highway to be used exclusively for the fast driving and testing of motor cars manufactured in and around Hartford. These include Columbia, Pope-Hartford, Corbin, Compound, Knox and Stevens-Duryea cars. This highway is to be of macadam and costs \$5,000 per mile. It will be laid out in territory available for the use of these several manufacturers.

TELLS OF FRENCH IDEAS

C. W. Kelsey, Back from Paris, Says Foreigners Excel in Metal Work—Favor Shaft Drive

New York, Jan. 7—C. W. Kelsey, eastern sales manager for the Maxwell-Briscoe Motor Co., is back from the French show and a visit to a number of the prominent factories in the vicinity of Paris. "Technically, while there were not so many changes from the standard types as at previous shows, there were many interesting innovations in the salon," says Mr. Kelsey. "Among these was an exhaust valve with a camshaft so arranged that it could be advanced 80 per cent. This makes it possible to use the exhaust as a brake, relieving the compression in an emergency and making a quick stop when necessary. It was regulated by a lever conveniently located at the dash, making it possible to advance the camshaft to any degree required. Generally speaking, the foreigners are ahead of us in metal work, but on designing I think we are at least a very close second. I was surprised to see that practically no chrome-nickel steel was used in the construction of this year's models. The front axles are generally made of high-grade iron, the Lemoyne being built of that metal. There seems to be a strong tendency to use silico-manganese steel in gears. In making castings the French are far ahead of us. The more general custom in America is to cast single cylinders. The French have outgrown this condition. They have reduced the possibility of blowholes and other imperfections to a minimum, and therefore do not feel they are taking any large percentage of chance in casting in pairs and even in sets of four and six.

"I noted that most all pressed steel work was hot pressed, making it possible to press out more intricate forms of frames and parts. In one booth I noted that even pistons were hot pressed from steel. Another tendency is to increase the general use of the shaft drive. Practically all the heavy cars and buses are now shaft-driven. The use of the magneto is practically universal now. Splash lubrication with oil kept at a level by a pump is apparently the up-to-date thing abroad. I saw a great number of cars thus lubricated. Another little detail noted was that cotter pins are almost obsolete, lock-washers now taking their place. In ball-bearings, the full type seems to be in favor instead of the silent kind, and there is a very wide use of this kind of bearing. Offsets seem to have been generally discarded after trial by nearly all the big makers.

"Clement had a model factory which is very large, the raw material being taken in at one end and the finished product shipped from the other. Mr. Clement told me he had already

bought \$4,000,000 worth of American machinery and that he was at present awaiting the shipment of \$200,000 worth more. Incidentally he is also looking for an American shop foreman.

"All Americans are much interested in the taximeter cabs, and I was not an exception. I rode in them on every occasion possible and was much impressed with the two-cylinder vertical motors which were used, which seemed to have a great deal of power and practically no vibration. I did not see a single cab broken down or delayed in any way while I was visiting in the city of Paris."

EXPORTS AND IMPORTS

Washington, D. C., Jan. 5—The latest federal statistics, which are for November and the 11 months ending with that month, show that 173 cars, valued at \$230,491, and parts to the value of \$45,268, were exported to various foreign countries, while during the corresponding month of 1905 the combined exports of cars and parts were valued at only \$129,389. During the 11 months period of 1906 the number of cars exported was 1,030, valued at \$1,610,426, with parts to the value of \$200,496. The combined value of the cars and parts exported during the same period of 1905 was \$2,499,010, while during the same period of 1904 the value was \$1,682,994. The November exports of cars and parts were destined as follows: United Kingdom, \$45,076; France, \$18,712; Germany, \$3,991; Italy, \$1,330; other European countries, \$10,725; British North America, \$32,241; Mexico, \$64,827; West Indies and Bermuda, \$22,353; South America, \$19,929; British East Indies, \$5,910; British Australasia, \$40,640; other Asia and Oceania, \$8,643; Africa, \$581; other countries, \$801. The import figures show that during November last 126 cars, valued at \$418,035, and parts to the value of \$28,320 were imported, principally through the port of New York, while during the same month of 1905 the number of cars imported was 61, valued at \$221,727, with parts to the value of \$19,653. During the 11 months of 1906 the number of cars imported was 1,175, valued at \$3,997,674; during the same period of 1905 the number was 451 and the value \$1,697,026.

CUP CARS NOT IN

New York, Jan. 5—The only Vanderbilt cup contender of Yankee breed likely to be seen at Ormond this year is the 50-horsepower Haynes, which it is said its present owner, W. C. Thorne, of Chicago, will send down. There seems to be little likelihood that E. R. Thomas will seek beach honors with any one of his three Vanderbilt cars and none whatever that the Locomobile or the Pope-Toledo cup cars will be on hand. The Locomobile people are said to have been miffed at the Ormond program makers not arranging it so the sprint racing machines, which have most made racing machine should be ineligible.

TALKS OF FUEL TEST

Al Poole Tells of Various Incidents Connected with Dragon's New Year's Day Run

Philadelphia, Pa., Jan. 5.—Naturally the Quakers displayed a great deal of interest in the denatured alcohol trip of Joe Tracy from New York to Philadelphia in the Golden Dragon New Year's day and the experiences of the party are being discussed in Philadelphia motoring circles along with the recent endurance run. Al Poole, who accompanied Tracy, has some interesting facts to give out and he told the Motor Age correspondent about them. He said: "We got a wrong start out of Newark, and we wandered over northern New Jersey for a couple of hours before we got our bearings and set sail for Rahway. Alcohol don't feed by gravity with the facility of gasoline, and we had a pump rigged up in the car to put pressure on. That was one cause of our troubles, for the fuel tank wasn't built to stand much air, and about 4 a. m. or thereabouts the top of the tank burst open and we lost almost all our alcohol. We managed to limp into Rahway. When daylight came we found a repair shop, and got the tank fixed up, and then went out on a fuel hunt. We started from New York with grain alcohol in the tank, but had to fill up with wood alcohol at Rahway. It was full of dirt and chips, and we neglected to strain it. We soon regretted it, for we hardly had left Rahway at 12:30 p. m. before the chips and dirt began to work into the carbureter, and it flooded time and again. Then the water got into the coil, soaking the high tension wires. Alcohol requires much more heat for a proper explosion than does gasoline, and we had to wrap the supply pipe with asbestos to prevent chilling. Nevertheless, when we hit 'er up the alcohol would get too cool. Then we had trouble with our lubrication, and we had to do much of it by hand. Of course all these drawbacks required many stops and we lost time constantly. However, we stuck at it, and going by way of Nietuchen, New Brunswick, Trenton and Camden, managed to reach here after midnight. We have no way of estimating the exact amount of alcohol we used. We lost the bulk of the 14 gallons we started out with when the tank burst. Not a little flooded out of the carbureter. At various places we bought 16 additional gallons, and when we landed here we had possibly 3 or 4 gallons left. To tell the truth, I have much more respect for good old 76 gasoline than I had a couple of days ago.

"Aside from the price of the fuel, I

found that a very much larger quantity of it was needful than of gasoline," said Tracy. "We used about three times as much alcohol as we would have used gasoline, to do the same work. We did not get quite as much power. This of course was due to the fact that the compression was not high enough. Had we been using an engine built for alcohol consumption, we could have done much better."

Considerable interest was displayed here in Philadelphia not only because the Dragon is made here but because of its being the first alcohol test publicly made. There is regret expressed, however, because Tracy did not keep track of the data.

FIGHTS FOR FREIGHT RATE

St. Louis, Mo., Jan. 7.—John C. Higden, president of the Success Automobile Mfg. Co., has gained a concession from the interstate commerce commission at Washington, D. C., which changes the classifica-



STEVENS-DURYEA, WINNER PHILADELPHIA TEST

tion of the Success auto-buggy on freight shipments. Mr. Higden protested against the official classification, which provided that runabouts and other one-seated self-propelling vehicles, crated or boxed, shall be charged at a minimum weight of 4,000 pounds and go first class and when not crated or boxed, 5,000 pounds first class. He pointed out that his auto-buggy weighs only 600 pounds crated and to ship one by freight to Pittsburg cost, crated, \$23; uncrated, \$28.75. Shipping by express the car goes by weight and only costs \$12. After considerable correspondence Mr. Higden finally secured a ruling, which went into effect January 1, that such vehicles, if crated or boxed in one package, not exceeding 30 inches in height and 110 inches in length, will be subject to a minimum weight of 2,000 pounds each, first class. Chairman Gill, of the commission, added that he assumed this classification would meet with Mr. Higden's approval. The latter, however, still is far from satisfied and says he will keep up the fight until motor cars can be shipped by freight at their actual weight.

'BIG SIX' THE WINNER

Stevens-Duryea Captures Quaker City Motor Club's Reliability Run—Protest Settled

Philadelphia, Pa., Jan. 5.—George T. Thompson's Stevens-Duryea came through the endurance run of the Quaker City Motor Club successfully, and, despite the fact that a protest was filed by T. W. Berger, owner of the Oldsmobile which finished second, has been declared the winner. The protest was based upon the claim that Mr. Thompson's car lost its muffler en route. This was settled by the committee penalizing the Stevens one point, which still left it with enough margin to head the list, with the Oldsmobile second with two demerits. The Lozier was third with three marks against it.

There was one motor car which came through without a penalty being chalked up against it—the Matheson driven by Ralph Mongini. That car was disqualified at the end of the first day's run at Harrisburg for not being equipped with the regular Matheson touring car body. A similar protest against the Simplex of Charles Hoffman was upheld by the committee at the same time. The two points penalty suffered by T. W. Berger's Oldsmobile were garnered in the shadow of the official garage at Harrisburg. The car had arrived some 20 minutes ahead of its schedule, and was waiting till the expiration of the limit, when a particle of the liberal coating of mud which covered the car worked its way into the carbureter, stopping the engine. The Frayer-Miller car, which won the New York Motor Club's recent economy run, and which was touted as a sure winner in this event, ran up against tire troubles from the start, and was paralyzed almost at every control, running up a total of 709 demerits. One of the most creditable performances of the run was that of the single-cylinder Cadillac driven by F. W. Stockbridge. It carried four passengers and finished in ninth place with but 211 bad marks against it. The car was a new one, just from the factory, and had been loaned for the run by the customer to which it had been sold.

In the small car class the contest for the Stillman cup narrowed down to a dual battle between W. George Brooks' Autocar and George W. Barbier's Rambler, the former winning by a big margin, tire troubles in the first half having put the Rambler and the other little fellows very much to the bad.

The arrival at the finish at the Majestic Hotel of No. 4, a Thomas, Jr., owned and driven by A. H. Martin, was greeted with

cheers. The car had been reported down and out early the first day with a broken shaft, and had been checked at but two controls. All of which was true. Martin, who is a stickler, determined to attempt a replacement, and having annexed a small shop 4 miles away—there were no facilities nearer—he and his assistants worked all New Year's day and far into the night before finishing the substitute. Then it had to be carried back on foot through the mud and installed by the light of the car's lamps. It was after 3 o'clock the next morning when the journey to Harrisburg was resumed. The plucky Thomasites reached the official garage just as the officials were preparing to send the others away, and No. 4 was allowed to start on its schedule, although it was officially out of the contest. The second day's run was completed without a penalty.

Officials of the club are well satisfied with the results, for interest in the affair was keen from start to finish. The large field of starters proved it to be a hit, while the practicability of the motor car was demonstrated by the fact that more than half finished the 2 days' test. There was only one unpleasant incident and that was the protest of the winner, but this was smoothed out by means of the A. A. A. officials, who advised that a penalty of one point be imposed on the six-cylinder for losing its muffler—a minor point, it is true; but one that was sustained by the rules and which the committee was forced to take into consideration in passing upon the protest that was filed.

The result of the run, as announced by the officials after the decision rendered on the contest by Berger, has been given out as follows:

CLASS A, MACDONALD & CAMPBELL CUP			
Pos.	Car	Driver	Penalties
1—	Stevens-Duryea	F. W. Aurlg.	1
2—	Oldsmobile	T. W. Berger	2
3—	Lozier	H. Michener	3
4—	Studebaker	Frank H. Yerger	17
5—	Oldsmobile	John Falls	48
6—	Locomobile	J. W. Florida	53
7—	Cleveland	Wallace Owen	117
8—	Thomas Flyer	Ernest R. Kelly	191
9—	Cadillac	F. W. Stockbridge	211
10—	Stearns	Oliver H. Hoffman	324
11—	Frayer-Miller	H. Knepper	709
CLASS B, H. B. STILLMAN CUP			
1—	Autocar	W. George Brooks	5
2—	Rambler	Harry Walls	230

AFTER A STATE SENATOR

Syracuse, N. Y., Jan. 7—The question of toll roads was discussed by the Syracuse Automobile Club tonight and State Senator Horace White was criticized for being a director and stockholder in the Cicero Plank Road Co., which demands toll of motorists and is charged with not keeping the road in good condition. A resolution was passed asking Senator White to resign as a director and to dispose of his stock in the Cicero Plank Road Co.

MAKE TALK FOR BRITON

England Discussing Motor Bus Combine, New Track and the Rolls-Royce Flotation

London, Dec. 29—The events of the week are the consummation of the proposed combine of the four London motor omnibus companies, the issue of the Brooklands racing track program and the flotation of Rolls-Royce. The motor bus combine was only agreed to after some stormy scenes at the meeting of the stockholders of the Vanguard Co.—the only one which has presented any trading accounts since going into business. The nominal capital of the old concerns amounts to about \$5,000,000, which is to be the capitalization of the new concern. But as all the capital was not issued the event really means the acquisition of fresh capital



ARRIVAL OF AUTOCAR IN PHILADELPHIA TEST

without disclosing what has been done with that already subscribed. There has been for some time a working agreement as to routes and fares between the four companies and this fusion is expected to enable the combine to put 600 motor omnibuses on the London streets with a probable passenger carriage of 200,000,000 per year. The Brooklands Racing Club is the venture of some moneyed enthusiasts who evidently think motor car racing can be handled on horse racing lines. A lease of a huge tract of land at Weybridge—about 30 miles out of London—in Surrey, has been secured and for some months past a small army of mechanical and other laborers have been licking it into the shape of a 3-mile lap track varying from 50 to 100 feet in width, pear-shaped and with a perfectly flat straight mile for record and other tests. This latter is going to be so surfaced that Florida beach records are expected to be eclipsed on the first set out. It may be said at once that the enthusiasm of the projectors is by no means universally shared. The project is of course welcomed. It will provide a good sport for

those who wish to experience a fresh sensation; it will enable those in the trade who build high-powered cars to get some very necessary advertising for their productions and for those in the trade but not in the venture itself it will help to continue the motor boom among the horsey people who are generally patrons of the semi-racing car manufacturers. But as a lasting or even a financially successful venture nobody outside its own proprietors expects it to continue very long.

LOUIS WAGNER RETURNS

New York, Jan. 8—Louis Wagner, winner of the last Vanderbilt cup race, arrived on the steamer La Bretagne yesterday. Wagner brings with him the Vanderbilt cup itself, which will be placed on view in the Darracq booth at the show. The 80-horsepower Darracq, the 1906 Vanderbilt winner, is also en route. It will be exhibited at the show for a few days and then shipped to Ormond the middle of next week. It had been expected that Victor Demogeot, the pilot of the 200-horsepower Darracq, which won the 2-mile-a-minute speed crown last year, would be this year's Darracq driver, but the car has been sold to Lee Guinness, an Englishman, who will be unable to come and will not send the car. Wagner will not drive the 1906 Vanderbilt cup winner in the sprint events, as the machine is intended only for distance racing. The 1905 Vanderbilt cup-winning Darracq will probably be sent to Florida and be driven by S. B. Stevens in the amateur events. The 130-horsepower de Dietrich, which Arthur Duray drove in the Vanderbilt race, was on La Bretagne and will be exhibited at the show. It is said the car will be sent to Florida and also that there is a chance that Duray himself will come over to drive it and that in the event of his not coming Sorel will be its pilot. If the de Dietrich be sent to Ormond it probably will be the only very dangerous competitor the Stanley steamer will have in the free-for-all mile and 2-miles-a-minute contests.

POSSIBLE ORMOND NOMINEES

New York, Jan. 7—Entries for the Ormond-Daytona meet will close on Saturday. Although actual nominations have been to date slow to materialize, Morgan has information and assurances that would seem to make certain an all-around filling of the events. The Stanley steamers will again be prominent. The mile winner of last year has had its gear raised and been otherwise improved. Mr. Stanley is confident that it will lower the mile figures to 25 seconds. Bader, of Boston, is to race a six-cylinder Napier and W. H. Hilliard, another Beantown Florida beach veteran, will enter a 90-horsepower Mercedes racer.

MOTOR CAR DEVELOPMENT

*The
1907
APPERSONS*



A 1907 APPERSON CAR WITH LANDAULET BODY

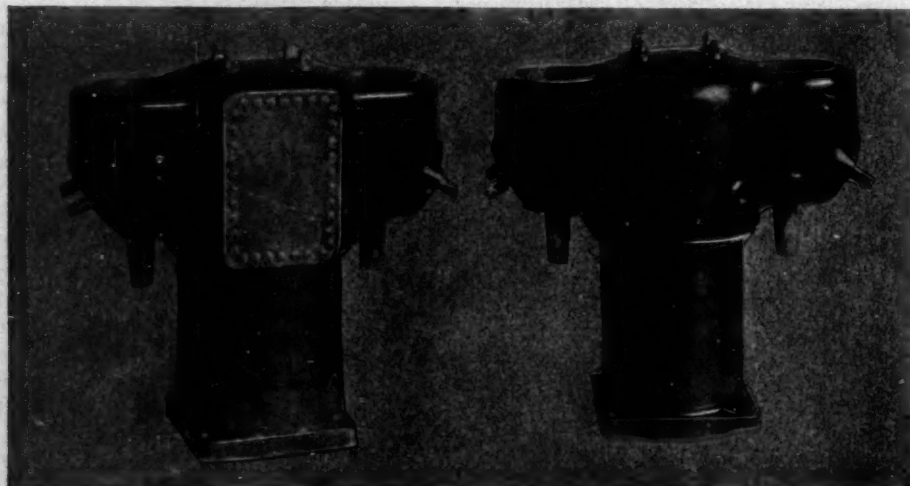


PPERSON cars for 1907, manufactured by the Apperson Brothers Automobile Co., Kokomo, Ind., are manufactured with two motor sizes, the smaller a 40-45-horsepower motor with 5-inch cylinder diameter and 5-inch piston stroke, and the larger motor with 5½-inch bore and 5-inch stroke. They are alike in general design, differing in minor details, as referred to later. In every style of car built the transmitting system includes a contracting band clutch, such as used for several seasons, acting on the flywheel. Changes in speed are through a selective gearset of Mercedes pattern, giving four forward speeds and one reverse, with drive by side chains, the company still remaining firm in its convictions in this regard. The company pursues that policy of building a medium number of cars and bestowing

on them the best possible workmanship, the various parts of these showing the results of careful handwork in practically every place. For the coming year the use of Krupp steel is general, chrome-nickel steel of this brand being generously used in the transmission shafts, gears and other parts. The line of bodies fitted on the 40-45 and 50-55 chassis includes seven-passenger touring cars, seven-passenger limousines and landaulets. To this standard line is added a three-passenger roadster of racy lines, and last but by no means least, a new speedster, or road car, fashioned along lines of the Vanderbilt cup racer. This car will be built in small numbers—fifteen being the proposed output—and its special details, referred to later, combine in making it one of the fastest road cars of the season. This new member of the Apperson family has been

christened the Jack Rabbit. It is interesting, before passing to a detailed consideration of the many parts of the car, to note that few changes have been made in the wheelbase, running gear, ignition, carbureter, brakes and other parts, and that the present Apperson is but a perfection of past models, experience showing that the principles followed in construction are proving good, leaving to the work of improvement that of refinement, better material and slight detail alterations in design of the models for this season.

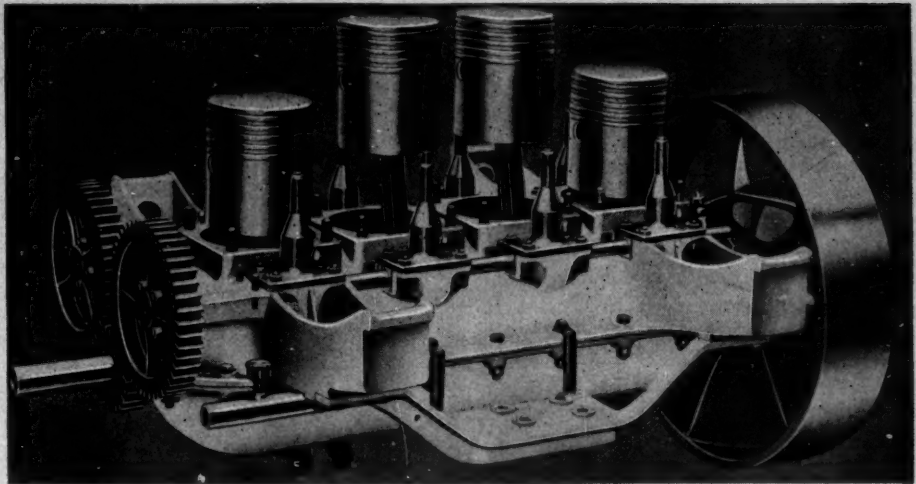
The year 1907 is the second for the Apperson motor with Apperson-made cylinder castings, and, as last year, the company uses separately-cast cylinders, this year with valves opposite, intake on the right and exhausts on the left. In the 50-55 motor the cylinders differ from those in the smaller brother in the use of brass side plates to form the waterjackets at the front and rear. The jacket casing in these parts is cut away, or left out in the casting, and brass plates 6 inches by 4½ inches are secured by a close series of machine screws. The result of this plating is the shortening of the motor 3 inches, the length of the motor over the cylinders being but 27 inches, this allowing for a space of ¼ inch between adjacent cylinders. In the smaller car the waterjackets are continuous throughout. Still another difference exists between the big one and the 40-45-horsepower motor in that the former has a crankshaft with 1½-inch diameter, whereas that of the smaller motor is 1¼ inch. Added to this is the use of bevel-seated valves on the small one and flat-seated valves on the large car. This style of valve, though new with the Appersons and



APPERSON CYLINDERS—50-55 AND 40-45 RESPECTIVELY

comparatively little used by American makers, has been used on Mercedes cars for many seasons and on several other leading European cars. The flat-seated valve gives a larger opening, diameter for diameter, than the bevel-seated type, but apart from this has little superiority. The compression in the 50-55 is slightly higher than in the other, and the timing is set for a speed of 1,350 crankshaft revolutions per minute when 60 horsepower is generated, and the smaller motor shows its rating at 1,200 revolutions. The water piping in one is larger than in the other; but such points as bearing surface, bearing metal, carburetor and ignition are the same. In finishing the interior of the cylinders the much-talked-of grinding process is not resorted to, the company placing its faith in a reaming process and leaving the pistons with their rings to finish the cylinder walls. Reasons advanced for this are that, with large reaming arms filling the major portion of the cylinder and with the use of a sharp tool it is possible to take as nearly even a cutting off as possible and in this way the perfect cylinder aimed at in finishing the casting is obtained. The maker considers that with grinding machines the grinder diameter is never constant and the hope of obtaining a perfectly cylindrical cylinder consequently remote.

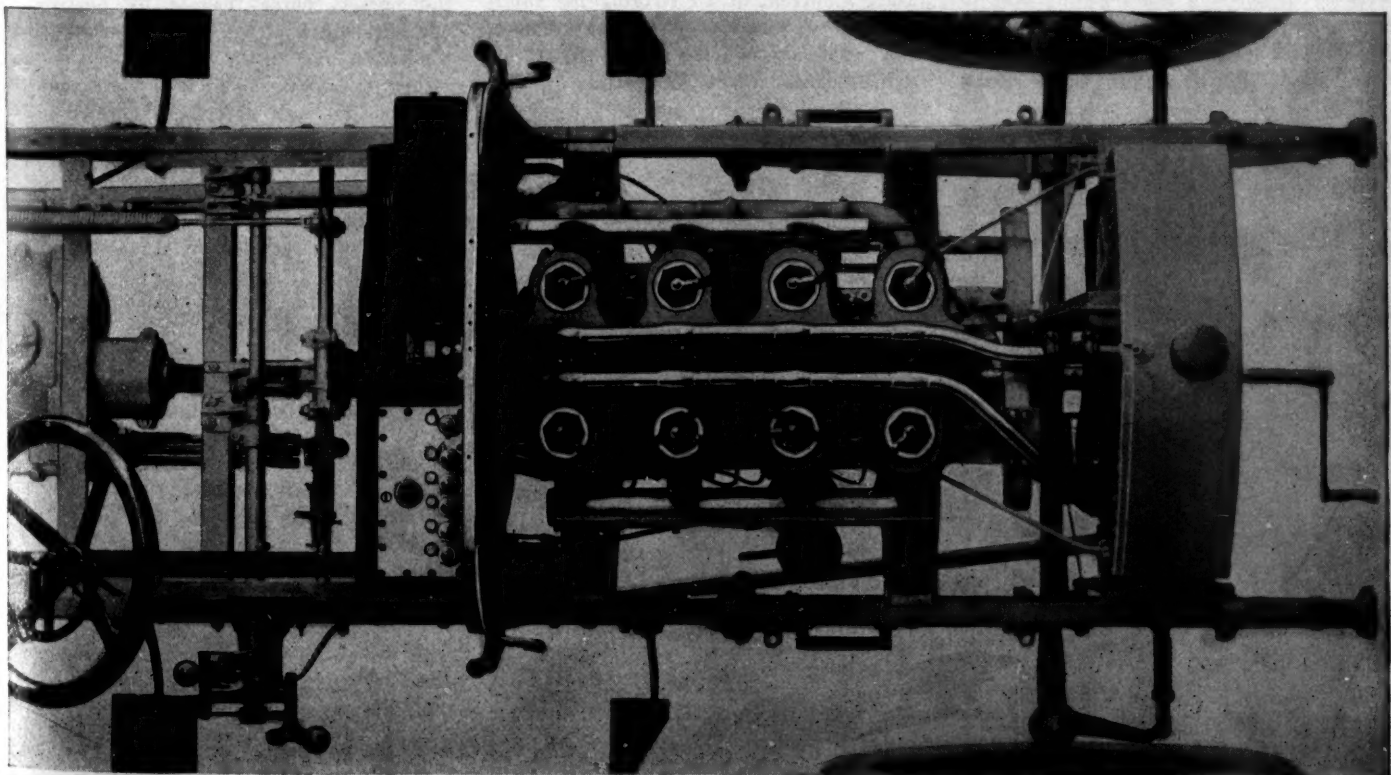
The Apperson crankcase is a two-part aluminum piece, the upper half with two integral arms on each side for taking the support on the main frame pieces, and also carrying the five crankshaft bearings, leaving the lower half to play the sole role of oil reservoir for splash lubrication. The upper part is particularly small and compact, due primarily to the



APPERSON MOTOR WITH CYLINDERS REMOVED

carrying of the two camshafts outside of the case and still further limiting the case dimensions by setting each cylinder on a rectangularly raised portion, thereby lowering the case top appreciably. In carrying the camshafts outside, as has been done for several seasons, care has been shown in properly housing the camshaft bearings and the cams, as well as in the efficient lubrication. The first is accomplished by covering those parts of the shafts adjacent to the bearings, and where the cams are carried, by a bronze cap with vertical guide for the valve lifter rod. There are four of these caps for each camshaft, and with these removed the shaft is instantly accessible and free for removal without interrupting the crankcase or any of its interior parts. To insure lubrication of the shaft bearings and cams a small opening is made between the compartment thus formed for housing the

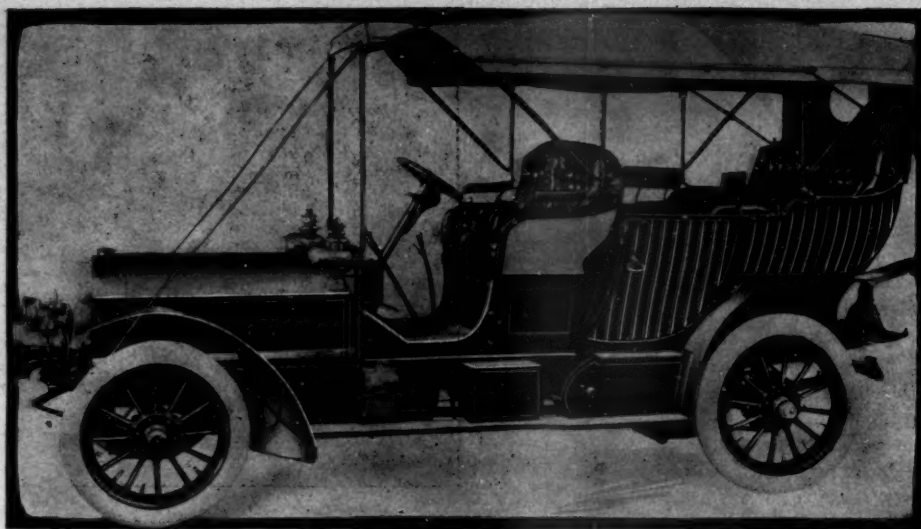
cams and bearing and the interior of the crankcase, and through this sufficient oil passes from the splash. An improvement in connection with the new crankcase is the housing of the half-time gears at the forward end. In a resume of the motor interiors attention is directed to the practice of carrying the crankshaft on five bearings, all of special metal and of ample length, that at the rear measuring 5 inches, the three intermediate bearings 2 5/8 inches each and the forward one 4 1/4 inches. An example of the care exercised in making Apperson cars is evidenced in the hand scraping of these bearings and the constant greasing of the crankshaft and trying it in the bearing to test the accuracy of the bearing, which process is continued until every part of the bearing perfectly fits the bearing parts of the crankshaft. Similar care is bestowed in the camshaft construction.



PLAN VIEW APPERSON CHASSIS, SHOWING MOTOR SUPPORT ON MAIN FRAME

Double ignition, first exploited in America by Apperson Brothers, is fitted on all vehicles built, and consists of what for convenience can be termed a major and minor set, the former made up of a gear-driven high-tension Remy magneto carried very accessibly on the left side between the motor arms and supported on a dropped cradle secured to the under side of the motor arms. So low is the magneto that its driveshaft passes beneath the forward motor arm and takes its drive by gear from the exhaust half-time gear. Carrying the motor low in this manner places it remote from the hot exhaust pipes, thereby permitting of working upon the magneto without danger of burning the hands. Another advantage is that the exhaust valves and exhaust camshaft are left perfectly accessible. In this part of the ignition scheme the magneto is of the self-contained distributing type, delivering its current to a separate set of plugs carried in the valve caps. The minor ignition set is a jump spark system, with igniting current supplied from storage cells and passed en route to a second set of plugs through a dash coil and chain-driven commutator, the latter located on the dash in view of the operator and driven off the exhaust camshaft. Both of these sets are controlled through the same levers on the hand wheel. On the dash is a switch for using either set separately, or their simultaneous use, at which time a pronounced increase in power is furnished without additional consumption of mixture. The value of the dual systems is well appreciated by the fact that Apperson practice in this regard is being widely copied in this country by many of the leading makers, and abroad it is common practice this year to fit complete separate systems with separate sets of spark plugs.

The supplying of mixture is entrusted to a Krebs-design of carbureter, built espe-



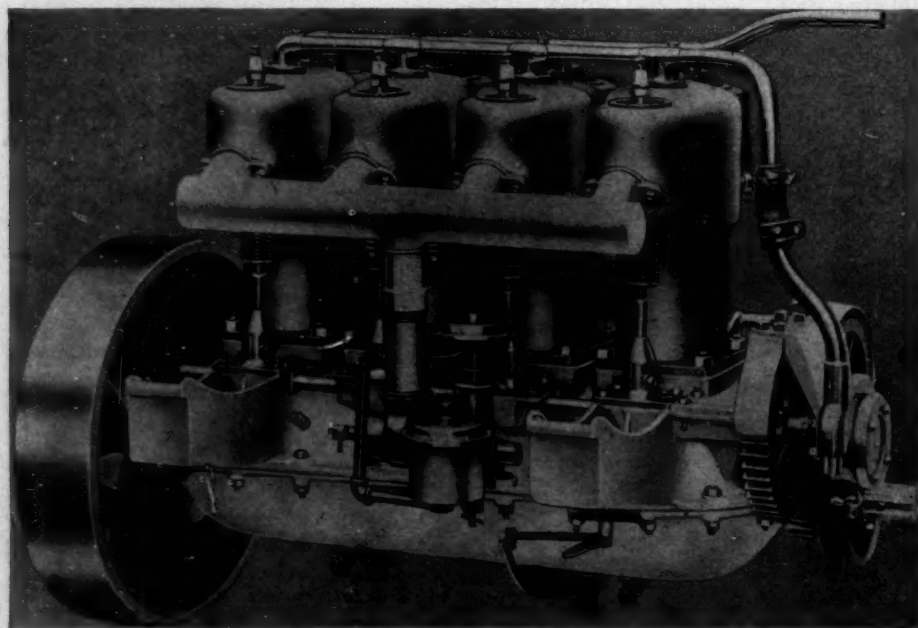
APPERSON 50-55-HORSEPOWER CAR, SEATING SEVEN

cially for the company and according to its specifications. This carbureter, of the separate float type, uses an auxiliary air valve the movement of which is controlled by a large diaphragm for the prevention of fluttering and giving a regular movement. The throttle is of the sliding barrel type with the chamber containing it slightly expanded, producing a balanced effect and guarding against sticking of the barrel. In the throttle are irregular slots for giving a desired inlet of mixture according to the opening of the barrel, and in the under side is an especially long slot through which air is drawn when first opened, this air licking up any gasoline that may have accumulated in the base of the barrel housing. The spraying nozzle is a short vertical inlet pipe in the cylindrical horizontal mixing part, and to insure a current of air striking the nozzle a horizontal thimble, of smaller diameter than the casing, is fitted in that part carrying the nozzle. The proportions of this thimble have been carefully worked out and

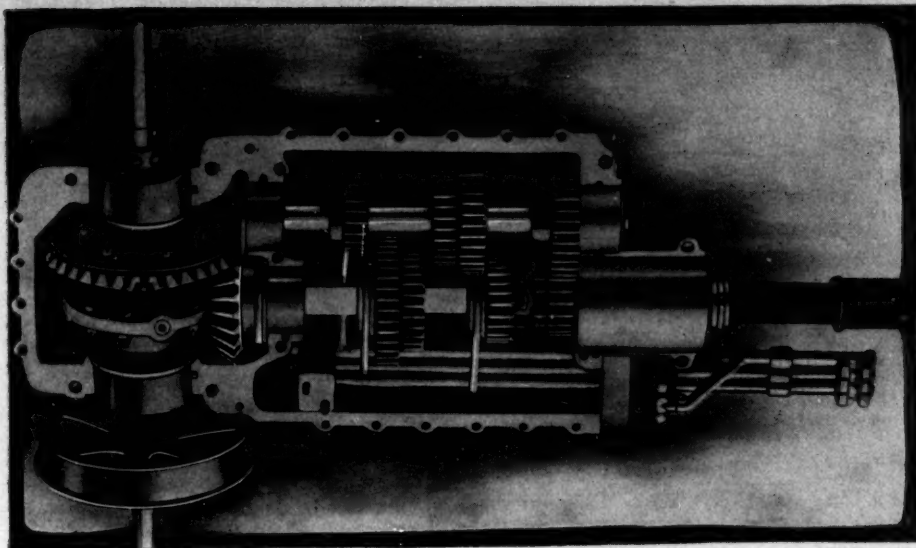
its presence is a feature of the carbureter. The different feature in this carbureter from the original Krebs is that the Appersons control the throttle direct from the steering wheel or the accelerator, whereas the original user of it had a motor governor for controlling it.

The remaining motor systems—circulation and lubrication—have not been seriously molested during the twelvemonth just elapsed. In the cooling plan the integral waterjackets receive their liquid supply direct from a sliding vane pump carried on the front end of the intake camshaft, which takes its supply from the radiator base. From the pump the water enters the cylinder heads on the right side, and just to the left of these openings are the exits of the return pipe to the radiator top, the circulation within the jackets being insured by partitions necessitating a circulation to the base of the jacket and up the opposite side to the return pipe. The cooler is of vertical tube construction, now entering the third year of its use, and it is assisted by a fan carried closely in the rear of it and by the fan spokes of the cast steel motor flywheel. Lubrication is by a multiple-feed McCord oiler carried on the dash and belt-driven. It has the usual quota of leads connecting with the important motor parts. A supply of oil is carried in a small barrel-like tank under the rear of the chassis. Intake and exhaust manifolds have not been changed. The former is a large-diameter short vertical pipe which connects with a common horizontal pipe with short branches to the valves, and the exhaust pipe is a four-piece construction with a separate part for each cylinder and a sliding union connecting these, allowing for expansion without imposing any strain on the cylinder castings.

In reviewing the transmitting members between the motor and road wheels the clamping band clutch merits first attention. Secured to an integral flange on the end of the crankshaft is a large steel flywheel with a drum part on its rear face



INTAKE SIDE APPERSON MOTOR, SHOWING CARBURETER



SPEED CHANGE GEAR AND JACKSHAFT ON THE APPERSON

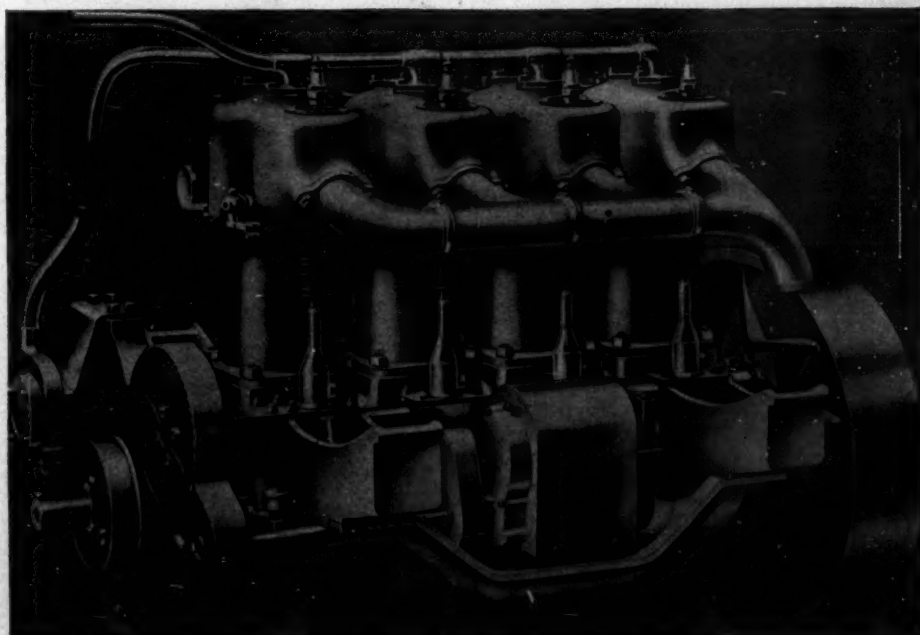
10¼ inches in diameter and 2¼ inches wide. The outer surface of the drum is first turned down, after which a bronze band is pressed over it and riveted in position. Surrounding this is a steel clamping band carried on the shaft to the gearbox. This band is split, with one end attached to the carrier and the other end linked to a short shaft supported on the carrier and having a radial arm extending toward the clutch hub. The contraction of the band on the bronze drum is by a spring-actuated wedge-shaped piece which when acted upon by the clutch spring thrusts the radial arm to one side, tightening the band. By means of set screw and lock nut any desired clutch tension can be had, which adjustments are possible through the car footboard.

Second in the transmitting of power is the selective transmission used for the second year and now regularly fitted on all cars. It offers four forward changes of speed, with one reverse, all gained through the manipulation of one side lever. Like the majority of cars using side chain drive the differential is incorporated within a rear compartment of the gearbox and supports the jackshaft with its chain sprockets on its outer ends. The transmission set resembles all of those of the selective type based on the accepted Mercedes principle, with a main and countershaft carried side by side and with the reverse pinion on a third shaft. Chrome nickel steel, specially treated, constitutes the shafts and gears, the mainshaft carrying the sliding members being of square cross section 1¾ inches on the side and the round countershaft made with an equal diameter. Gears vary in face width from 1½-inch to 1¼-inch and are made with six pitch, those on the countershaft being keyed in position and end movement guarded against by spacing sleeves. In the right side, located entirely within the case, are the three shifter rods, with their forward ends extending through the front end of the case and there carrying a lock-

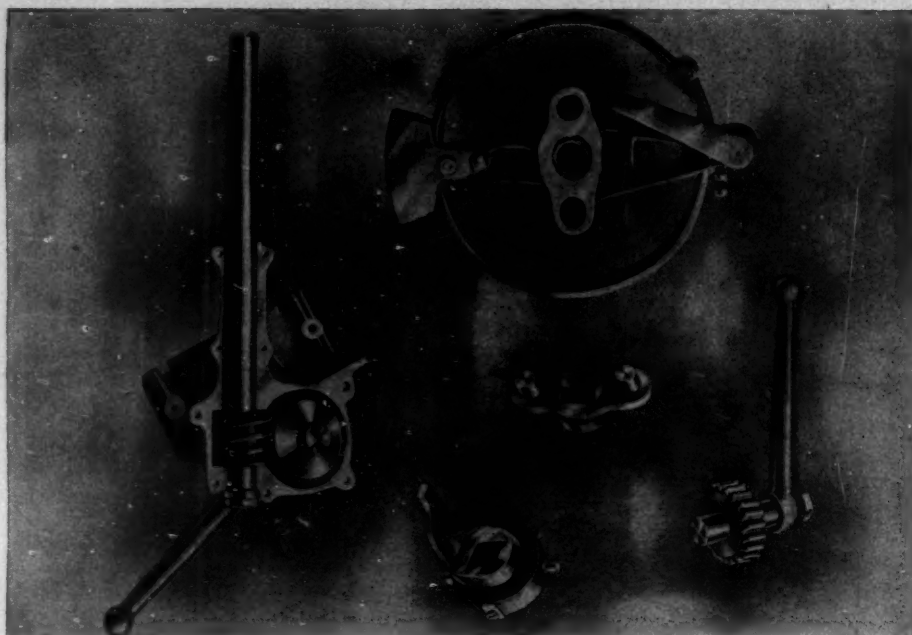
ing system for preventing more than one shaft shifting at a time and also carrying on their forward ends transverse U slots in which engages the drop arm on the inner end of the sleeve carrying the change speed lever. With the change speed lever in the outer slot of its quadrant the outer shifter rod is engaged, giving third speed when pushed ahead and fourth when drawn back. In the middle slot the second shifter rod is picked up and with the lever forward in the slot the first speed is brought into action, and, when moved back, the second speed. The inner slot is for reverse movement only and entrance to it is through the use of the latch on the lever. Both shafts are carried on American roller bearings, the forward one of the main shaft being of double length. Like the other bearings it is carried between the upper and lower halves of the case, which, by the way, is suspended beneath a couple of angle cross

pieces of the frame, the attachment to these being through six ½-inch bolts passing through both upper and lower halves of the case. In addition to these six bolts are several short ones, eight on each side, for giving an oil-tight union between the halves of the case. Direct drive on the high speed is effected by locking the forward shifting gear with the gear on the shaft from the clutch by dental face teeth, and within this clutch shaft the forward end of the main shaft has a bronze bearing 5½ inches long, the bronze bushing between the two shafts having a wall thickness of ¼-inch. To add strength to the lower half of the aluminum case a series of cross and longitudinal webbings is introduced, these webs being extra deep beneath the center portions and gradually tapering to the sides. The differential of the bevel type carries the planetary pinions on a solid drop forged cross piece of open hearth steel and has the casing side on the right formed of manganese bronze of a tensile strength of 80,000 pounds to the square inch, this metal entering into use because of carrying the running brake on the right half of the jackshaft and adjacent to it. This brake is a steel-upon-steel clamping band acting on a brake wheel 9½ inches in diameter and 2 inches wide. The jackshaft consists of two driveshafts of nickel steel 1¼ inch in diameter and having on their outer ends 3-inch ground tapers, to which the sprockets are pressed and keyed in position. The outer ends, like those within the differential housing, are carried on American roller bearings supported in brackets on the under side of the frame pieces. Chains for side drive are of standard make.

In the running gear not the least interesting part is the pressed steel framework made with the side pieces straight from front to rear, a commendable prac-



EXHAUST SIDE APPERSON MOTOR, SHOWING MAGNETO

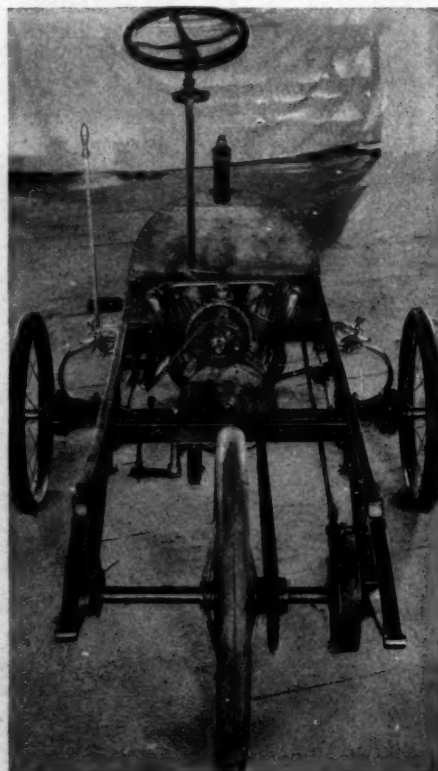


STEERING GEAR AND CLUTCH ASSEMBLY ON APPERSON CAR

tice followed by this house for years. In spite of this a subframe suspension is not needed for the motor or gearbox, the former with its supporting arms resting directly on the frame pieces and the latter supported through a pair of angle cross arms already referred to. Instead of making the side pieces of exceptional vertical depth, commensurate with a high-powered car of 116-inch wheelbase, a vertical of depth of 4 inches is used, the channel lips having a width of $1\frac{1}{2}$ inches and the whole frame with a $\frac{3}{8}$ -inch wall thickness. The 4-inch depth is continued from in front of the back attachment of the front springs to the rear of the front attachment of the back springs. Carried as a reinforcement throughout this length is another channel steel piece placed within the main channel and riveted in position. There is thus a double frame thickness under the entire part of the car, overlapping with the spring supports. The frame width, outside of the side pieces, is $31\frac{1}{4}$ inches and every frame union is secured by hot riveting with the assistance of large side angle plates serving as braces. Supporting the frame in front and rear is a semi-elliptic spring suspension with the rear pair carried outside of the framework and conventionally shackled. Axles in front and rear are hand forgings of carbon steel, the former carrying on its end easily recognized vertical hubs of the Lemoine style for taking the steering pivots. From these it drops rapidly to the spring seating and then crosses horizontally until the center is reached, when it is given a characteristic short downward curve. The rear axle, of square cross section at the ends but changing to round towards the center, is dropped immediately inside of the spring seating and then continues across the car horizontally. The road wheels are regularly supported on Timken roller bearings. Steering is by the worm and sector

principle with the sector formed as a complete wheel, the wheel shaft with a square taper fit in the end of the radius arm permitting of changing the wheel's position four times in case of wear and each time presenting an unworn surface to mesh with the worm.

Lastly, in the running gear are the emergency brakes of the steel-to-steel style as used on the jackshaft, excepting that these have drums 10 inches in diameter and $1\frac{1}{2}$ inch wide and the clamping bands acting on the outer drum surface. Radius rods between the back axle and jackshaft bearings provide for chain adjustments.



CHASSIS OF THE AUTOCYCLE

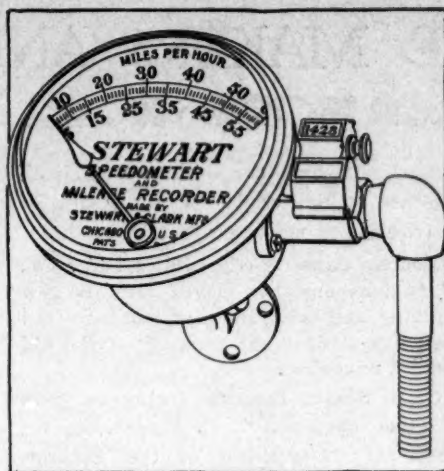
The 50-55-horsepower touring cars are made with 116-inch wheelbase, 56-inch tread and 34-inch wheels carrying 4 and $4\frac{1}{2}$ -inch tires respectively in front and rear. On the 40-45-horsepower machine the wheels and tires are the same size but the wheelbase is 1 inch shorter; on the standard 50-55 three-passenger runabout the wheelbase is reduced to 110 inches, I-beam chrome nickel steel axles and Hess-Bright bearings are used, but otherwise the details of this vehicle resemble those of the touring cars. Lastly the Jack Rabbit, the racing runabout, is made with a 50-55-horsepower motor, or any other power up to 100-horsepower, at special prices; its wheelbase is cut down to 100 inches; both axles are of I-beam chrome nickel steel; the frame is of nickel steel with $\frac{1}{8}$ -inch wall thickness and without reinforcement; brakes are internal and external members acting on rear wheel drums, one set pedal and the other lever applied; driving chains are Diamond chrome nickel steel members of one and one-quarter pitch working over sprockets of thirty-four teeth on jackshaft and rear wheel; the clearance is $9\frac{1}{2}$ inches; front and rear semi-elliptic springs measure 34 and 40 inches respectively and the body design is identical with that of the Vanderbilt racer, with the driver and other passenger sitting low over the back axle and having behind them a large cylindrical 20-gallon gasoline tank. The car weighs but 1,800 pounds.

USES AUTOCYCLE PRINCIPLE

A year ago James N. Vandegrift, Philadelphia, announced before the Technology Club, of Syracuse, N. Y., his new theory of transportation in the following words: "In any vehicle the body to be transported should be placed upon the fewest possible supporting wheels. These wheels should be placed tandem instead of parallel with each other and the power applied as directly as possible." In his lecture Mr. Vandegrift confined himself to a specific application of this theory to the motor cycle railway system to propel electric trains upon standard railroads at a speed of 120 miles per hour using a central supporting rail between the ordinary rails to carry the train and the outer rails to support balance wheels on either side of the trucks to maintain the equilibrium of the train. While engaged in perfecting details of his high speed railway system he decided to demonstrate some of the essential features of his system by constructing a motor car upon bicycle principles. In July of last year the Vandegrift Automobile Co. was incorporated and a factory building secured at Thirteenth and Cumberland streets, Philadelphia. After building two light gasoline autocycles for experimental purposes and testing them thoroughly, a standard two-passenger autocycle finally has been determined upon which the company is placing upon the market. It presents features so strikingly novel and completely at variance

with all conventional ideas of a vehicle that its public appearance has caused something of a sensation. The autocycle is designed to embody in one vehicle the speed, comfort, and utility of the motor car with the grace, simplicity, lightness, and cheapness of the bicycle. The bicycle, with its wheels placed tandem, in a single vertical plane, free from the side and torsional strains of the ordinary four-wheel vehicles, conforms to the law of inertia so admirably that it develops more speed with less power than any other type of vehicle. To realize a maximum of speed and hill-climbing qualities with a minimum of power, the principle of two-wheel tandem support should be employed; the vehicle should offer the least possible surface to wind resistance and be constructed as light as is consistent with strength and durability. The autocycle weighs 380 pounds and carries its own weight in passengers with a 6-horsepower two-cylinder air-cooled gasoline motor at a maximum speed of 45 miles per hour. It may be turned upon a radius of 7 feet and in turning a radius of 30 feet may be driven with safety at a speed of 20 miles per hour. About one-third of the weight of the vehicle is carried upon the front steering wheel and two-thirds upon the rear driving wheel. The firm contact of the single driving wheel is practically constant under all conditions—whether running over an uneven surface or turning a corner rapidly, it never loses its grip upon the road. It requires, of course, no differential gear or even double chain drive. The small balance wheels on either side carry little or no weight—merely enough to maintain the equilibrium of the vehicle. As the speed of the vehicle increases the demands upon them for balancing purposes naturally decrease. The axle connecting them is provided with a link check spring device under either side of the body. These springs under normal conditions take little weight but are so adjustable they carry readily any weight which may be placed upon them. In other words, the vehicle will carry readily a heavy person who might persist in sitting upon one side instead of in the middle of the vehicle. A true bicycle condition is of course only realized when the vehicle is perfectly balanced and the weights equalized and under this condition the highest speed is attained with practically no weight upon the balance wheels. In practice, however, it is found that an excess of 100 to 125 pounds in weight on either side of the vehicle makes little material difference in operation.

The links in connection with the balance springs allow the small side wheels to follow depressions and inequalities, thus remaining in contact with the surface of the highway even when they carry no weight. These side balance wheels turn in unison with the front steering wheel, each at its proper angle in rounding any curve. They give the vehicle additional



NEW STEWART SPEEDOMETER

safety in turning corners by means of the front steering wheel, the fork of which is raked backward, throwing the point of ground contact of the wheel toward the outside of the curve turned, thus counteracting any centrifugal effects, throwing the center of gravity of the vehicle and passengers towards the center of the curve. The autocycle actually has turned a semi-circle with ease upon a radius of 9 feet at a speed of 12 miles per hour, a decidedly startling performance, even to the designers of the vehicle, who had not suspected its full possibilities in making quick, sharp turns. The backward rake of the steering fork makes the vehicle very responsive to the wheel and in the case of smooth, straight running, allows the hands to be entirely free, as with the bicycle.

In one type of transmission the 6-horsepower two-cylinder air-cooled motor drives by belt directly to a pulley upon the rear wheel, which revolves with a live axle. The latter has ball bearings at either end and under the spring clips. All wheels and the steering head are provided with ball bearings and the front of the chassis

rests upon a spiral spring over the steering fork. In the other type of transmission friction drive is used, giving innumerable speeds forward and reverse. This enables any hill to be climbed, a maximum of 45 miles per hour to be maintained when opportunity offers and on the other hand a speed of 2 miles per hour resorted to in crowded city streets. The steering wheel is provided with spark and throttle control. The autocycle has approximately 1 horsepower for each 60 pounds of weight. This fact, in combination with the bicycle principle upon which the vehicle is designed, enables the enormously high speed to be realized and hills readily negotiated.

A NEW SPEEDOMETER

The Stewart & Clark Mfg. Co., 69-71 Wells street, Chicago, has brought out the Stewart speedometer, for registering motor car speed in miles per hour as well as keeping record of the total season mileage and the trip mileage. The instrument is a large-diameter dial intended to be carried on the car dash and has the miles-per-hour record, showing up to 60 miles, across the top of the dial in crescent form. Another instrument, of exactly similar design, will register the speed up to 120 miles an hour. The indicator needle is mounted at the lower edge of the dial with its tip extending to the speed figures. To the right of the dial is a small cubical part showing the season and trip odometer parts. The feature in the Stewart speedometer is the flexible shaft used, consisting of steel links that hook into one another—no riveting or splicing being required. The universal joint at the right of the instrument part, seen in the illustration, permits the flexible shaft to hang at any angle, obviates short bends in the shaft and is claimed to prevent crystallization. The instrument is made throughout with special care, all parts receiving due attention. The company is now building a new factory.



VANDERGRIFF CAR, WITH FULL EQUIPMENT, READY FOR THE ROAD



AMONG THE MAKERS AND DEALERS



Poole a Dragon Man—A. L. Poole, who rode with Joe Tracy as mechanic, is now with the Dragon Automobile Co.

Rainier in New Place—E. Q. Cordner, manager of the Chicago Rainier branch, has moved his stock into the company's new building and garage at 1725-7 Michigan avenue.

Hyatt Banquet Date—The Hyatt Roller Bearing Co., of Harrison, N. J., will give its fifth annual banquet and vaudeville entertainment to the trade on Thursday evening of show week at half past 9 o'clock at the Hotel Astor.

Cole Out of Napier Company—Otto B. Cole has resigned as president of the Napier Motor Car Co. of America, with headquarters in Boston. Mr. Cole's place has been taken by Ernest V. Dane, of Brookline. Mr. Dane is new in the motor industry.

Archer to Enlarge—There has been an expansion in the equipment of Archer & Co., the American agents for the Hotchkiss. A new shop and repair department has been established at West Forty-third street, New York. An entire loft is needed to accommodate the new department.

Joins Minneapolis Colony—The Evans Motor Car Co. has been incorporated in Minneapolis, with a capital of \$50,000, to handle the Mitchell and Wayne cars. A garage is now being erected near the New York Life building on Second avenue, south. C. C. Evans is president and treasurer of the company.

Wants an Accounting—An echo of the Croesus Motor Car Co., formed in Kansas City last year, is contained in a suit filed recently in the courts there by George W. Curtiss against W. L. Bell for an accounting. Curtiss alleges he was to furnish the brains and skill and Bell the cash; that two cars were built, but that they are still on hand and no effort has been made to push their sale. The company has expended some \$3,500 in the construction of the cars, it is alleged.

Benz Factory To Move—The townsmen of Mannheim, Germany, are not satisfied with the decision of the Benz company to remove outside the town. The Benz people wanted to increase their works and negotiated with the municipality for the purchase of 100,000 square yards of open ground belonging to the town. So many difficulties were put in the way, however, that the Benz people resolved to get outside the town and invest in a piece of land three times the size of that first bargained for. Hundreds of workmen will follow the factory in its move, and the feeling of the town is high against the municipality, which, however, is only do-

ing what many other German municipalities are seeking to do—place all sorts of restrictions on motor car factories.

Doubles Capacity—The Bates Forge Co., of Indianapolis, has moved into its new building and with its new hammers and tools has doubled the capacity of the old shop, it announces.

O. E. Seager Resigns—Owing to press of other business, O. E. Seager has retired as vice-president of the Jackson Automobile Co. of Kansas City, although retaining his stock. His place shortly will be filled.

Rudy Sells Out—W. E. Rudy, who has been conducting a garage and bicycle agency at Lima, O., for the past several years, has sold the business to Ralph DeVoe. The Rudy garage will continue to handle the Ford, Premier, Jackson and Pope-Waverley lines the coming season.

Factory Nearly Ready—The Whitney Mfg. Co., of Hartford, Conn., has commenced to move into its new fireproof factory building, which is nearly completed. The company will operate both plants until it is settled, so its production may be steadily increased with no interruption because of the moving.

Opens Onondaga Garage—Grove E. Warner and William H. Bex will conduct a motor car business at 541-543 South Clinton street, Syracuse, N. Y., under the name of the Onondaga garage. They will sell the Thomas car and will do a repair and livery business. This is the building formerly occupied by the R. M. Cornwall company.

Depot for National Battery—The National Battery depot, of Chicago, located at 271 Michigan avenue, has been opened by George S. Berger, who has been associated with the storage battery business in Chicago for many years, and a complete stock of electric vehicle and sparking battery parts will be carried. The National Battery Co.'s sales offices, at 450 Old Colony building, will be, as heretofore, under the management of Bertram Smith.

New Michelin Deal—E. Lamberjack, of Paris, who has for a long period been the export agent for the entire product of Michelin & Co., of France, is in New York and has formed a company and taken over all the rights, effects and good-will of the Michelin Products Selling Co., of 31-33 West Thirty-first street. The new firm will be known as E. Lamberjack & Co., and will occupy the offices heretofore occupied by the Michelin Products Selling Co. Under this arrangement Michelin & Co. will deal directly through this concern. A reduction in the price of Michelin tires has been brought about through this ar-

rangement, it is announced. The main offices will be at 31-33 West Thirty-first street, New York city.

Takes American Mercedes—The American Mercedes agency at Lakewood, N. J., has been placed with Joseph B. Hoff.

In Motor Mart—D. P. Nichols & Co., the new agents for the Frayer-Miller in Boston, have secured quarters in the motor mart at Park square.

Newton Selling Pops—A. L. Newton, a famous Dartmouth college and N. Y. A. C. man, formerly with Peter Fogarty, has joined the selling force of the A. G. Southworth Co., New York agent for the Pope cars.

On the Market—The Huntsville Motor Car Co., of Huntsville, Ala., recently organized, and which has taken the Ford agency, asks that manufacturers of motor cars and accessories send catalogues and trade prices.

Gets New Location—The Atlantic Motor Car Co., one of the recently formed companies in New York, has taken a location at the corner of Broadway and Fifty-seventh street. The Atlantic company has only been incorporated about a year, handling the Autocar and Stoddard-Dayton.

Made State Agents—Lyons & Co., of Grand Forks, N. D., have been appointed state agents for practically all the northern part of North Dakota for Franklin and Cadillac motor cars and Indian motor cycles. They handled the Franklin last year, adding the Cadillac for 1907. They have a territory for supplies extending as far west as the Montana boundary.

Smith Joins Allyne Forces—Pierce Smith, of the J. D. Smith Foundry and Supply Co., of Cleveland, is now associated with the Allyne Brass Foundry Co. and is representing it on the road. This company now has plants running in full operation in Cleveland, Buffalo and Detroit, all practically under the same organization. It is commencing work on additional building on the Detroit plant to occupy part of a recent purchase of 1½ acres adjoining.

Holding Up Prices—C. A. Mezger, maker of the Soot-Proof spark plug which is handled by the National Sales Corporation, has issued a license for the sale of his product which reads that "no license is granted to use these spark plugs when sold at a price lower than indicated. In the sale or use of these spark plugs, one sold in violation of these conditions or any obliteration of this notice will be considered an infringement of our United States letters patent, * * * and any person so selling or using these spark plugs contrary to the terms of this license

and notice will be considered an infringer of said letters patent, and will render himself liable to suit for damages."

Chesterton Gets a Garage—Bradley & Sons have secured a location for a garage in Chesterton, Ind., and will open the establishment in the spring.

From Tires to Cars—H. L. Johnson, who has been the Boston representative of the G & J Tire Co. for some years, has made a change. He now has joined the Premier agency forces in Boston.

Stratton Adds De Luxe—H. C. Stratton, who has been handling the American Mercedes in Boston, has added the De Luxe to his list. He got a demonstrating car of the latter make a few days ago and booked an order on a 5-minute demonstration.

Hernandez a Continental Man—Raymond Martinez Hernandez has been appointed western agent of the Continental Caoutchouc Co., taking effect the first of the year, and will have charge of all the territory west of Chicago with the exception of California.

Corbin Branch Incorporates—The New York branch of the Corbin company has been incorporated under the title of the Corbin Motor Vehicle Co. of New York, with M. S. Hart as president; E. H. Brant, vice-president, and Lafayette Markle, secretary and treasurer.

Holsman Price Advanced—W. Hildreth, manager of the Holsman Automobile Co., of Chicago, states that on January 21 the price of models 9 and 10 will be advanced. Mr. Hildreth also states that although the company has been in its present new factory only about 8 months, it is already working to its fullest capacity and is planning for more space soon. He estimates that the company's output for 1907 will be from 1,500 to 2,000 machines.

Garage in Residence District—Beyster & Thorpe, a newly organized company with a capital of \$25,000, at Detroit, now has its new garage and salesroom completed. The building is located at 1329-1331 Woodward avenue. It has a pressed brick and plate glass front 50 feet wide and a depth of 100 feet. The Aerocar line will be handled exclusively. This is the second garage to be erected on this handsome residence street away from the row in the downtown district of Detroit on Jefferson avenue.

Change in Marion, Ind.—The Coppock Motor Car Co. has been organized and incorporated for \$100,000 and has purchased the business of the Murillo Motor Car Co., of Marion, Ind., the officers of the new concern being as follows: M. Earle Brackett, president; W. H. Myers, vice-president; H. F. Reynolds, secretary; Harry Ward, treasurer, and L. W. Coppock, general superintendent. The company is manufacturing light and heavy motor trucks for heavy trucking and delivery wagons, and is figuring on later

making pleasure cars. It announces it is ready to accept orders at the present time for reasonable delivery.

Paige Takes Maxwell—Walter M. Paige has opened a garage at 131 Cass street, Traverse City, Mich., and will handle the Maxwell car and conduct a general repair and storage business.

Is St. Louis Car Co.—It is the St. Louis Car Co. instead of the St. Louis Motor Car Co. which has opened a New York branch of the American Mors in the old Winton headquarters at Broadway and Fifty-fourth street.

New Matheson Agents—Recent Matheson agency placings include the Automobile Livery Co., of San Francisco, which covers northern California as its exclusive territory, and the Matheson Co., at Newark, N. J., which is under the management of J. B. Ryall.

Bales To Move—Frank Bales has taken the agency for the Cadillac in Kansas City and for the present will find quarters near Fourteenth on Walnut. Later in the season he will erect a roomy garage at Admiral boulevard and Grand avenue, opposite the Midland hotel.

Four in Its Line—In addition to the agencies for the Reo and Wayne, taken some weeks ago, the Capital Auto Co., 130-132 East New street, Indianapolis, has acquired the state agencies for the Jackson and Overland. The company will do garage work, but will also manufacture tops and carry accessories.

Bean Locates—Sidney A. Bean, manufacturers' agent and eastern representative of the Warner Instrument Co., has opened a new store at 1773 Broadway, where his brother, Irving M. Bean, will represent the Vesta Accumulator Co., manufacturer of the Vesta sparking battery, electric horns and lights, and the Turner Brass Works, manufacturer of the Harroun bumper.

Winton's New Gotham Branch—Although its decorating and fitting will not be entirely completed for a fortnight yet, the Winton New York branch now is housed in the new garage at the northwest corner of Broadway and Seventieth street. The building has four stories and a roof garden besides. It is constructed on the Hennebique system of armored concrete. It has a frontage on Broadway of 112½ feet and on Seventieth street of 153 feet. The total floor space is 84,000 square feet. The first floor is devoted to offices, showroom and receiving garage, and the second and third to storage. There are storage facilities for 300 cars and only Wintons are accepted. The fourth floor is given over to the repair shop. On this floor also is the stock room, wherein is kept at all times \$100,000 worth of parts, embracing replacements for every model of Winton ever built. The novel feature, however, of the garage is the roof garden, which has been designed

primarily for the use of drivers. Here they can wash, make adjustments and tune up their cars.

Mora in Gotham—The Mora car is now being handled in New York by Cemiotti Brothers, who have established themselves at 2824 Broadway, near Tenth street.

Takes Territory for Rainier—The Auto-Motor Co., of 804 Sycamore street, Cincinnati, O., has secured the agency for the Rainier for southern Ohio and eastern Kentucky.

Bonney Rents New Garage—The Bonney Motor Car Co., of Kansas City, has taken the garage at 1112 Locust street, formerly occupied by the Western Automobile Co. It is Kansas City agent for the Wayne and may add other cars to its line in the near future.

New Seattle Enterprise—M. Francis Kane has secured the Seattle agency for the Wayne and has made arrangements to erect a garage to cost \$20,000 at Blanchard and Eighth streets. Mr. Kane is an attorney and, while he is financing the project, expects to engage a manager.

Swinehart Change—H. F. Siegrist has severed his connection with the Swinehart Clincher Tire & Rubber Co., of which he was treasurer, Frederick Boron succeeding him. The Swinehart company is adding new machinery to its plant, which will allow of an increase of 50 per cent over the present output.

Trainload of Buicks—The Pence Automobile Co., of Minneapolis, Northwestern agent for the Buick, has arranged for a trainload of twenty-two cars, filled with 1907 Buicks, to leave the factory at Jackson early in January for the Minneapolis house. The Chicago Great Western road will furnish the cars for the train, which will go through as a special to the Pence company in Minneapolis.

Train to the Show—Following the usual custom of the previous 2 years, the Toledo Motor Car Co., of Toledo, O., will run a special train to the forthcoming Madison Square garden show, taking prospective purchasers to the metropolis and return. The train will leave the Union station at 1:30 p. m. next Sunday, which will land the crowd in New York on the following morning. Burton O. Gamble will be in personal charge of the crowd.

Bacon a Cleveland Manager—The Cassidy-Fairbank Co. having retired from the field, the Cleveland Motor Car Co. has opened a Chicago branch and placed in charge Richard Bacon, Jr., formerly with the O. F. Weber Co. Headquarters will be at 1470 Michigan avenue, where the new branch will share space with the Bird-Sykes Co. The makers of the Cleveland car recently moved into a new factory in Cleveland and have established sales agencies in New York, Boston, Pittsburg, Philadelphia, Cleveland, New Orleans, San Francisco and Los Angeles, expecting to market about 250 cars in 1907.

THE REALM OF THE COMMERCIAL CAR



SPIRAL SPRINGS ON BREWERY TRUCK

IN NEWSPAPER SERVICE

THE exceptional speed possible with the motor car soon marked it as a favorite for daily newspapers in that it offered specially quick delivery service through large cities and to suburbs. The London dailies were the first to seize upon the motor for this purpose, several of them using tri-cars with large-sized carrying compartments between the two front wheels, the single back wheel being the driver. After this introduction 3 years ago, Parisian dailies adopted the plan and simultaneous with their adoption several American journals followed suit. One of the foremost in this line was the Brooklyn Daily Eagle, which always has taken a lively interest in all phases of motoring. For some time the Eagle has owned four cars, all used directly in its service, and recently it has added the fifth vehicle, a delivery wagon for distributing papers through the city

and also New York. The car is a Pope-Toledo chassis with special body built for the purpose. During the recent Grand Palace show the delivery excited continuous comment and since then it has been doing daily service, giving the utmost satisfaction. The adaptation of the motor car for newspaper delivery service has frequently been cited in these columns; cases being on record where the cars are fitted with special wheels for running on railroad tracks and when so fitted it is possible to make deliveries of morning papers several hours in advance of the best schedule possible with railroad cars.

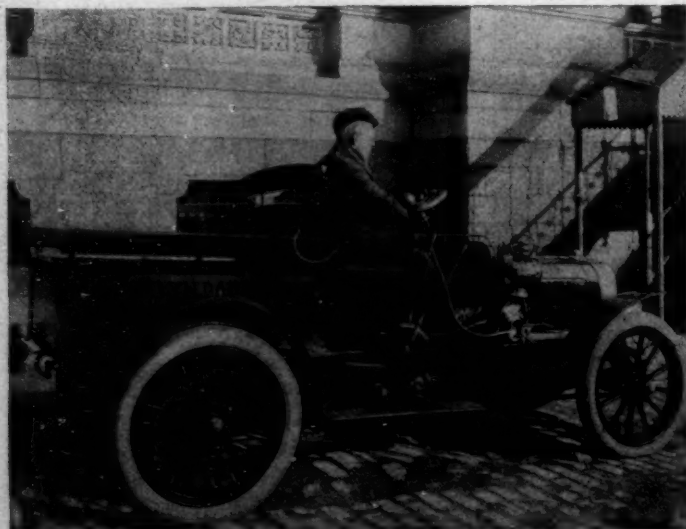
GOOD FOR PIANO MOVING

The commercial car, judged by present conditions, is adaptable for most every class of service. The George E. Dewey Co., Hartford, Conn., doing a general trucking business and making a specialty of piano moving, has adopted a Knox 2-ton truck which is giving good service. The vehicle is of the 1907 model, the same as the one which was on the Glidden tour. It is double chain-driven and the engines are governor-controlled, a departure in Knox construction, and a speed of about 15 miles an hour is possible. According to the owners, the machine will carry about 25 per cent in excess of its rated capacity. The frame is built of channel steel, the front axle is of I-beam construction and the body rests on strong springs. Shortly after its installation the truck made two trips to Bristol and return, a distance of about 80 miles, in 1 day, which hardly could be accomplished by a horse outfit. Another trip was made to Meriden and return in the morning, about 40 miles, and another to Springfield in the afternoon, a distance of 52 miles. As the business of the company is very extensive, long trips frequently are necessary. In this respect the truck is especially well worth while, for it can do three times the

work of a horse outfit, to say nothing of doing it in less time. In moving pianos, where a crew of four men is necessary and where they are paid by the hour, the truck effects a saving by its ability to get there and back. Manager Simpson is able to climb Elmwood hill, one of the steepest grades in the vicinity of Hartford, on the high gear with a full load.

BALTIMORE MAIL WAGONS

The postoffice department is trying the experiment of using motor cars in the postal collection service in Baltimore, Md., with the idea that if the experiment is a success it will extend the service to other cities. The machines in use are two 16-horsepower Columbias, which have been rebuilt as to body with the exigencies of the service in mind. They have provisions for hanging mail sacks under cover, a step for the collector to ride upon and a cage for registered mail. They work 12 hours a day, and cover an average of 50 miles in their running time, and making from twenty-seven to a hundred stops per trip. These two machines have displaced four horse carts and so far have held up their end of the work so well that all connected with the experiment are much pleased. What the winter will do to the service remains to be seen—reliability and quickness are the prime essentials and if snow and ice conditions bring these factors down below normal the motor will be discarded, in Baltimore at least. No one, however, anticipates that much trouble will result, and those who know Baltimore say if the experiment succeeds there it will go anywhere, Baltimore having many steep grades and much heavy cobble pavement. The motor cars are not owned by the department but are rented by contract from a local firm, which furnishes drivers, keeps the cars in order and stores them. The contract price is not made public, but it must be larger than is paid for two



SERVICE WAGON USED BY BROOKLYN EAGLE



KNOX TRUCK USED IN HAULING PIANOS

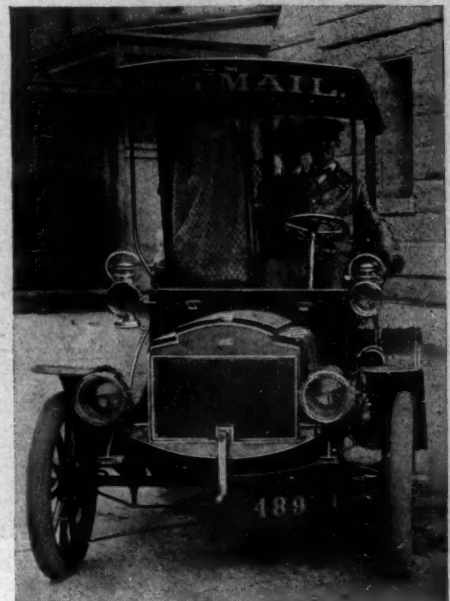
MOTOR CARS POPULAR VEHICLES

horses and carts, from the nature of things and so a great economy must be shown if the experiment is to be a complete success. Regarding the use of motor cars in the postal service, the annual report of First Assistant Postmaster General Hitchcock says: "During the past year, for the first time in the history of the department, arrangements were made for the introduction of a motor car service in the collection of city mail. Under a contract that went into effect on October 1, last two specially-equipped cars are being utilized in the collection service of Baltimore. Favorable reports have been received regarding them, and the department is now planning for a similar collection service in several other places. It is believed that in large cities motor cars can be advantageously substituted to a considerable extent for the horse carts now employed so generally in collecting mail. By the use of motor vehicles a much speedier collection service can be organized without added expense. Plans are being considered also for the introduction of motor cars in other branches of the city postal system, with the purpose of quickening as far as possible the handling of the mails. Unquestionably the motor vehicle can be an important factor in the postal service, as it already is in other business enterprises." This is regarded as the greatest tribute the government has ever paid the motor car, and is a distinct sign of the times. Public Printer Stillings in his annual report also recommends the adoption of motor vehicles in the delivery department of the government printing office at Washington.

NEW FRICTION-DRIVE TRUCK

The Commercial Motor Truck Co., Plymouth, O., is out with a new line of motor trucks of from 3 to 5 tons capacity. The new vehicle is of the friction-drive type. After making exhaustive tests, covering a

period of 3 years, the company is satisfied with and convinced of the efficiency of friction transmission. The engine, of the water-cooled type, water circulating through a honey-comb radiator with fan attached, is comprised of four vertical cylinders, rating on a brake test 43-horsepower at 1,300 revolutions. The power is transmitted by means of a shaft extending from the engine to about three-fourths of the way back of the machine. Upon this shaft are placed two universal joints, which are located between the engine and the friction drive for the purpose of taking up any strain on the shaft which might be caused by the body of the truck assuming different elevations as it travels over the ground. On the rear part of this shaft are two friction disks, permanently attached and which revolve on the shaft. Between these two disks travel two friction wheels, whose position is regulated by the lower wheel on the steering column. As this wheel is manipulated by the driver the friction wheels move from the periphery of the friction disks toward the center, thus increasing or decreasing the speed for the reason that, as the pulleys are out towards the periphery of the friction disks, they are traveling at a faster speed than when they are close to the center of the disks. As these friction wheels are brought by means of a foot lever against the forward friction disk, the machine is given a forward motion. As these pulleys are placed against the rear friction disk, the reverse motion is obtained, thus giving almost an immediate change of direction of travel, as the forward or rear lever is used by the operator. In the use of the two pulleys, which are bearing together either upon the fore or the rear friction disk, any cramping in the shaft, which might exist in the use of but one pulley, is thus eliminated. Upon the ends of the shaft upon which these pulleys revolve are located the sprocket wheels from which



CAR FOR CARRYING REGISTERED MAIL

two chains connect with a rear shaft, through which the power is transmitted to the rear wheels. Between the rear wheels are a reduction gear and differential. The reduction gear is used in case of emergency when the machine is mounting a steep grade or is pulling its load out of a deep hole. All bearings of this truck are of the roller type, excepting two sets of ball bearings which are used to take care of the end thrusts in the friction disks. The brakes of the machine are internal expanding, operating in cast steel drums, placed upon the axles of the rear wheels and bolted to the spokes. The wheels carry solid rubber tires. The front wheels are 32 inches in diameter, using a 3½-inch tire, and the rear wheels are 36 inches in diameter, using the dual tire, each having a 3-inch face. The truck body, from a point immediately in rear of the vestibule, measures 5 feet wide and



COLUMBIA 16-HORSEPOWER CARS IN MAIL SERVICE IN BALTIMORE STARTING ON COLLECTING TRIPS



INTERIOR VIEW OF THE SPACIOUS GARAGE OF THE NATIONAL CASH REGISTER CO.

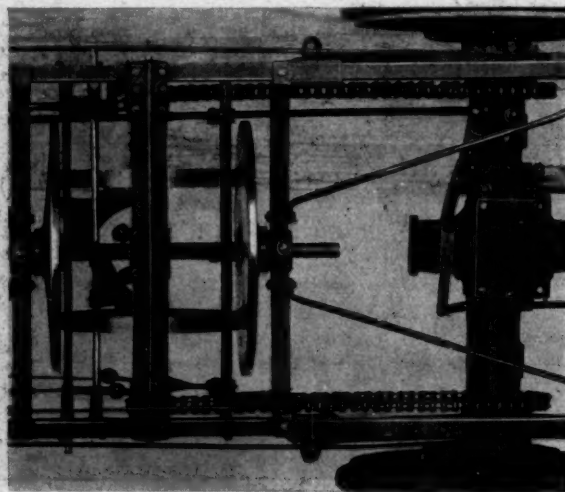
11 feet long. The wheelbase is 12 feet, giving it an advantage not only in distributing load, but in making it easier to travel over ground surface. The tread is 56½ inches. To work out the transmission feature many different loads have been hauled and many different kinds of roadbed have been traveled. The most severe test the new motor truck has been subjected to was in the hauling of 5,500 feet of lumber a distance of 8 miles, of which 1 mile was mud road of 2 to 6 inches thickness; 2 miles of macadam; 1 mile of cobble stone. The rest of the distance was paved with asphalt or brick. The distance was covered by the truck and its load in exactly 1 hour 25 minutes. Another test was the hauling of 5 tons of produce over a distance containing from 10 to 15 per cent grades. During 6 months of constant operation, the machine has worked without developing a break or defect. R. A. Bartley & Co., Toledo, O., who are contemplating supplanting team-trucking with motor-trucking, have been taking marked interest in the truck. R. A. Bartley, the head of the concern, had the following to say regarding the tests: "Relative to the demonstrations, as made by our firm on December 18, I desire to state that in the morning a small load was taken by the new truck from our wholesale house to East Toledo, two stops being made, a distance of 2 miles being covered in 20 minutes, while it would have required 25 minutes for the delivery to have been made by team. In the afternoon, a larger load was delivered, eleven stops being made in 6 miles, the motor truck making the trip in exactly 1 hour. To have delivered the same load by team would have required 3 hours. Later in the afternoon, when the largest load was taken, the load weigh-

ing 9,000 pounds, a distance of 11 miles, the car making sixteen stops, was made in 2 hours. In this instance the streets were in the main mostly paved, there being 1¼ miles of the distance that was mud, the condition of the roadway being very rough, due to having been cut up by heavy hauling, while freezing further put the road in bad shape. To have delivered the same by team would have required 6 hours. The demonstrations of the new motor truck have been entirely satisfactory." In addition to the manufacturing of the new commercial vehicle, the Plymouth concern also has planned to manufacture a sight-seeing car. Five seats, each having a capacity for comfortably seating four passengers, are provided. The seats measure 5 feet wide and 14 inches deep inside the leather upholstery. The distance between the seats measures 17 inches. Charles A. Keller has taken charge of the sales department and has opened headquarters in the Spitzer building, Toledo. Manager Keller announces that he will at once begin an ag-

gressive campaign to prove to the business world the general ability of the truck made by the Commercial company. The Plymouth concern has moved slowly in the matter of putting the rig on the market, believing it a better policy to be certain of its product than to undertake to offer it before it was ready. She tests it has given the truck, however, have been convincing, and Manager Neller will now be ready.

USED BY THE N. C. R.

The National Cash Register Co., Dayton, O., believes in the motor car for pleasure and the commercial car for business uses. The company has some eight or nine rigs. One is a Pope-Toledo which President Robert Paterson took to Europe and Africa last season and made a trip from Cape Town to Johannesburg, 1,000 miles. Another is a Winton, of early, vintage, which was used in New York by the agents there. One Locomobile is used. The Haynes is well represented, all the different models, from the 1905 runabout to the 1907 touring car, being used. The company has ordered six Stoddard-Daytons for its agents in different cities, doing away with the horse in every place that it can. It has four commercial truckers. A 5-ton Rainier car has been used over a year with good results. The company recently has purchased three Studebakers, one 5-ton and two 3-ton machines, and so good has been the service that they have given that the N. C. R. management has ordered five more 5-ton trucks. The company employs its own mechanics and electricians and the cost of repairs and running expenses of the trucks are carefully watched. The concern has its own garage, with H. G. Johnson as superintendent, who has charge of six men who

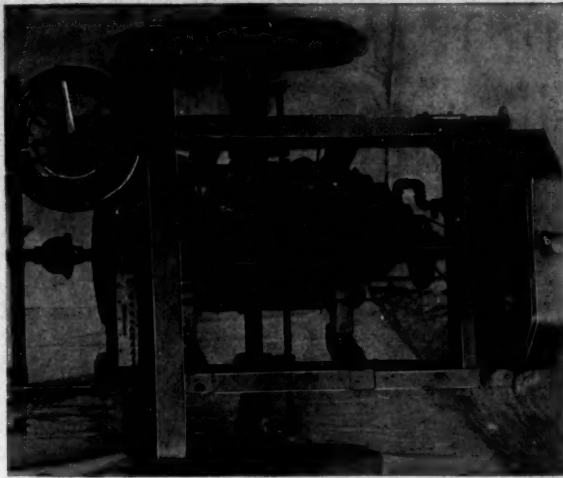


CHASSIS OF THE COMMERCIAL TRUCK

make all repairs and changes. In the system of handling the cars a record is kept of every time a trip is made on a time slip, which is kept in the office of the superintendent. The exterior and the interior of the garage are illustrated. The building was formerly one of the company's stables which has been fitted with all modern improvements and is used this winter for the care of the pleasure cars and commercial cars. Later it will be torn down and one large enough to care for all the machines built. The company long has been converted to motoring and every chance it gets to boost the game it takes advantage of the opportunity, and it is doubtful if any other business house in the country gives the motor car any more support than does the cash register concern. Its openly expressed admiration for the motor truck has opened the eyes of the business men of Dayton, and its example doubtless will be followed by others.

HAS MOTOR CAR FEVER

J. J. Rogers & Co., Ausable Forks, N. Y., manufacturers of paper pulp, have in operation a narrow-gauge railway over which are run trains drawn by a motor car fitted with a 20-horsepower Brennan motor. This road is 2 miles in length and a train has a hauling capacity of 7 tons. The road is used to haul coal and wood and a run of 2 miles is made from a train which is run 2 miles loaded and unloaded in 7 or 8 minutes. The work was formerly all done by teams. The motor car was made by securing a set of railway trucks and putting sprockets on the car axles. There are two sets of trucks connected by sprockets and chains to get transmission on both sets. Power is transmitted to transmission gears through one of the axles by single chain cone clutch used be-



PLAN VIEW COMMERCIAL MOTOR

tween the motor and transmission. There is a sliding gear with two speeds forward and reverse, the reverse speed being the same as the high forward speed which allows a quick return of the train. The driver sits in front, behind the radiator coil. The task is easy as he has to do no steering. The saving which the company brought about by installing this system is enormous and it is expected that a large number of similar private railways will be installed in the near future.

CAR FOR CHIEF NEEDED

An amusing situation has developed in connection with the adoption of a motor car by the Springfield, Mass., fire department for first aid to fires. A Knox waterless 35-40-horsepower chassis was fitted some months ago with an emergency outfit, consisting of chemical tanks, 200 feet of hose, and equipped to carry eight men. It is housed at the central fire station in Springfield and has attended every alarm since its adoption, rendering inestimable aid and saving thousands of dollars' worth of property by reason of its prompt at-

tendance. The chief of the fire department and his deputy are supplied by the city with horses, which necessarily require the attention of a driver. Their services, so far as active participation in the conflagrations are concerned, have practically been dispensed with, as in almost every case the motor car auxiliary has reached the fire so much earlier than the horse-drawn vehicles that the fire has been out before the arrival of the latter. This situation is realized by the city fathers and the council was advised by the board of fire commissioners at the annual meeting to purchase two of the lighter four-cylinder cars made by the Knox Automobile Co., of Springfield, for the use of the chief

and his deputy. The council was also advised to immediately purchase another of the larger Knox waterless cars and equip it similarly to the one in its possession, that each may cover different sections of the town. The attention of the city council was drawn, not so much to the fact that the motor car auxiliary was able to outpace the chief of the department, but that when the latter arrived his driver was occupied in taking care of his horse, and consequently not available for fire duty, whereas if furnished with a motor car the driver could leave the machine and assist in the work of fire fighting. The feeling in the city is so unanimous as to the use of these auxiliaries—the council itself being of the same opinion—that the complete service is expected to be established within the next 60 days. But the amusing part of the whole situation is that the chief is unable to live up to the old customs and be first at the fires. When he does get his car it will be an interesting race with the emergency machines to see if the latter will continue to be first at the conflagration.



COMMERCIAL MOTOR TRUCK, FITTED AS A STAKE WAGON



FROM THE FOUR WINDS



A. C. A. Show Profits—The Grand Central palace show is reported to have made a profit of \$52,000, half of which will be divided among the exhibitors, which represents a dividend of 45 per cent on the amount paid for space.

National Show for Norway—In July, 1907, a motor car show will be opened in Bergen under the protection of the king of Norway. July 5 to 14 are the present fixed dates. As this is a national show, only those foreign concerns which have native representatives in Sweden can exhibit.

Loses Three Cars by Fire—The private garage of C. D. Stimson, at 1204 Minor street, Seattle, Wash., was gutted by fire recently and three cars destroyed. The loss is about \$10,000. The machines were late models of the Franklin, White Steamer and Brasier. The loss is partly covered by insurance.

E. F. D. Man Gets Car—Thomas P. Nicholson, who covers the rural free delivery route through Montgomeryville, Montgomery square and the section round about in Montgomery county, Pennsylvania, has invested in a gasoline run-about and expects to cover his territory in half the time formerly required when he gets his machine.

Opposition to Grand Prix—The French constructors' delegates waited on the minister of the interior to obtain the authorization for the grand prix. The decision is reserved. It is certain there will be considerable opposition by unknown parties this time to the granting of the authorization, but the constructors seem to doubt whether it can justly be withheld.

Cars for Quaker Officials—An item of \$5,000 for the purchase and maintenance of a motor car for Philadelphia's department of public works was inserted in the annual budget last week. It is claimed that a car is an absolute necessity for inspecting work in various widely-separated sections of the city, but some opposition has developed on the ground that all the other city departments would also discover that they could not get along without motor cars.

Another Boulevard for Buffalo—Buffalo motorists will be glad to learn that Assemblyman Brooks, of that city, will introduce a bill before the present legislature providing that Niagara street from Hertel avenue to the city line, Buffalo, be made into a boulevard, with the result that macadam or asphalt will take the place of the present stone pavement. Mr. Brooks says motorists demand this improvement, but certain large property holders on Niagara street object to this plan because the expense would be borne

half by the abutting owners and half by the park department. The section of the street where the contemplated improvement will be made, if the Brooks bill succeeds, is about $1\frac{1}{4}$ miles long. The cost of macadamizing would be \$58,000, and for asphalt \$80,000.

One More Speedway—Another New Jersey speedway scheme has been launched. Charles D. Tillinghast, of Woodhaven, L. I., has bought 2,000 acres of wild land in Cumberland county, on which he plans to construct a motor car race course and speedway. The tract is in the Lakewood vicinage, some 50 miles distant from Philadelphia and lies between the towns of Mannu, Muskin and Risley.

German Commercial Test—At its last meeting the Verein Deutscher Motorfahrzeug Industrieller discussed the matter of organizing in 1907 a special competition for commercial vehicles and buses. An industrial show is being held in Dusseldorf and the motor wagons would leave there to proceed by road to Berlin by 70-mile stages, where a 3-day exhibition will be held for the commercial rigs.

L. I. A. C. Committees—Announcement has been made of the 1907 committee chairmen of the Long Island Automobile Club, of Brooklyn. They are: Good roads, A. R. Pardington; law and legislation, James D. Bell; runs and tours, Charles Jerome Edwards; membership, C. H. Galt; technical, Louis T. Weiss; garage, A. C. Howe; finance and auditing, Alfred Wilmarth; house and entertainment, Edwin Melvin.

Discuss Parkway Plans—A conference was held last Thursday evening at Riverhead, L. I., the contemplated terminus of the speedway between the town's board of trade and A. R. Pardington, general manager, and J. DeMont Thompson, treasurer, of the Long Island Motor Parkway Co. Plans were discussed at length and the enthusiastic approval of the board to the suggestion that the land be contributed by the town secured.

New Charitable Idea—Quite a pretty observance of Christmas in Indianapolis was the singing of carols in public institutions by the children of the Indiana Institute for the Blind. The children visited the various charitable and penal institutions through the efforts of the Indianapolis Star and the motor car manufacturers, owners and dealers of the city. The program was arranged by the Star, the motor and trade men furnishing the cars and services for the purpose. Nearly forty children and their attendants visited the Marion county jail, city police station, Marion county workhouse, city hospital and Eleanor hospital for children,

Christmas afternoon. Cars for the purpose were furnished as follows: Gibson Automobile Co., Premier; Fisher Automobile Co., Stoddard-Dayton; National Motor Vehicle Co., National; Premier Motor Mfg. Co., two Premiers; Hugh J. McGowan, Haynes, and Gilbert Van Camp, Marmon.

American Entries for Grand Prix—Stories are afloat, alleged to be based on good foundation, that Colonel A. A. Pope and E. R. Thomas will enter in the coming grand prix the Pope-Toledo and Thomas racers built by them for the Vanderbilt cup race. Entries for the grand prix close on February 1. Later nominations, however, will be accepted at \$2,000, which is double the fee charged for early entries.

Will Study Gas Engines—A course in gas engines as applied to motor cars, motor cycles and motor boats is announced by the Mechanics' institute, Rochester, N. Y. This will be a popular course covered by about fourteen lessons. No previous experience is necessary for entrance and all work will be started from elementary stages. The course will consist of seven lectures, followed by five or more laboratory exercises and two lessons studying motor cars at the institute or at garages.

Good Run in Columbia Electric—Columbia electric carriages are nominally rated at 40 miles on one charge of the battery, but this mileage has often been exceeded in actual road tests. Last week G. W. Gammack is reported to have run a new model Columbia victoria phaeton 75% miles on one charge, averaging a speed of 15 miles per hour. This is the highest mileage recorded in any of the company's tests. Mr. Gammack made most of the distance in a driving rain and was handicapped in various ways owing to the storm. The vehicle was in every sense a regularly equipped stock model with a standard Exide battery of twenty-four cells furnishing the power.

New Industry—A new development reflecting the growth and magnitude of the motor car industry is the organization of the Technical Press Bureau in New York to supply manuscripts on motor and engineering subjects to the trade press and technical publications. An office for the bureau was opened January 1 at 25 West Forty-second street. H. W. Perry, associate editor of the Commercial Vehicle, is manager of the bureau. Associated with him is Howard Greene, who has been on the staff of the Automobile and the Horseless Age as a writer on mechanical subjects for several years, having severed his connection with the former publication at the end of the

year. The work of the Technical Press Bureau will be confined mainly to furnishing special illustrated articles. Joseph Tracy, Herbert L. Towle, W. P. Stephens, Thomas L. White and Harold Brown will be among the writers. Arrangements also have been made with Edwin Levick and Nathan Lazarnick to supply photographs for illustrating.

More Kaiserpreis Entries—Among the recent entrants to the Emperor's cup, which will be raced on the Taunus course, Germany, are three Darracqs, five Mercedes, of which two will be of the new electric-gasoline mixed type; three Adlers, three Minervas, two Fahrzeug Fabriks, and three Lorraine-Dietrich cars, one Lucia and one Protos. The lists already include over forty cars, and it is expected the last few days will bring in further entries.

Syracuse Club's New Officers—The nominating committee of the Automobile Club of Syracuse, of Syracuse, N. Y., has chosen the following officers for the ensuing year: President, Hurlburt W. Smith; first vice-president, Christopher C. Bradley, Jr.; second vice-president, Harry C. Pierce; secretary and treasurer, Forman Wilkinson. The club will hold its annual banquet in February, when a number of prominent speakers will be secured. Willet L. Brown, the retiring president, succeeded the first president, T. D. Wilkins, upon his death, and has held the office ever since.

Follow Good Roads Suggestion—Following out the suggestion of Highway Commissioner Hunter, of Pennsylvania, that township supervisors should form county associations to expedite their work, the supervisors of Luzerne county have been called to meet at Wilkes-Barre on January 22 to form a good roads association. Commissioner Hunter and other officers connected with the department will address the meeting. Similar organization also are proposed in other sections of the state, and the prospects for more intelligent and economical expenditure of the \$6,500,000 appropriated by the state for good roads in 1903 are excellent.

Glidden's Plans—C. J. Glidden, whose Napier motor car was upset within 50 miles of the City of Mexico while the touring party was whirling over the rails at a speed of 28 miles an hour, has shipped the machine to England for repairs and will follow it, with the idea of resuming his world's tour there next summer. The axles were slightly bent and the front wheels destroyed. It had been Mr. Glidden's intention to end the rail trip at the City of Mexico anyway. He had traveled 6,775 miles since leaving Boston, November 1, without accident, 4,972 miles being by rail. This gives Mr. Glidden a total mileage of 39,718 since starting for his record of 50,000 miles in fifty different countries. It is the intention of the tourist to make another trip by rail some time in order to demonstrate that he be-

lieves in this method of transportation and that he has not lost his nerve.

Will Be a Monthly—It is announced that Motor Way of Chicago will be issued as a monthly instead of a weekly from now on.

School in 'Frisco—A motor car engineering department of Heald's School of Engineering, of San Francisco, has just opened for the purpose of training intending purchasers and drivers of the motor car to handle machines and also do simple repairing and adjustments.

St. Louis' New Tags—The St. Louis tags for 1907 are much superior in appearance to those issued last year. The old tags had a yellow background which made it almost impossible to read the numbers at any distance. This year the number is in white characters on black background and is visible a long distance. These license tags under the present St. Louis ordinances cost \$10 each. The city register has ordered 1,500 of them, which probably will not be enough to go around when all the new cars are delivered to purchasers in the spring.

Quaker Tags Dropped—Philadelphia motorists are overjoyed because the local authorities have decided that it will no longer be necessary for them to carry a city tag in addition to that issued by the state. A city license must be secured, but instead of a tag each motorist will be given a small card to indicate that he has complied with the municipal regulations—this to be exhibited when any local peace preserver makes the demand. The new regulation does away with the duplicate tag nuisance and the constant changing of tags required in going out of and returning to the city.

Motor Cycles Instead of Cars—The St. Louis board of police commissioners has decided to discontinue the police motor car patrol and set a squad of blue coats on motor cycles after the scorchers. Two police cars with a maximum speed of 35 miles an hour have been in service for several years, but the commissioners are not satisfied that scorching has been reduced to the minimum. It is proposed to start six policemen out at the beginning on motor cycles, and to gradually increase the number to twenty. Members of the police board have investigated the results of motor cycle patrol in New York and other eastern cities, and have come to the conclusion it is more satisfactory. The speed limit in St. Louis is 8 miles an hour, but the law is not rigidly enforced and motorists never are molested unless they are running faster than 15 miles an hour. The arrests have averaged not more than two a week, but the police court judges have an inexorable rule that always results in a fine of \$25 and costs for the offender. Most of the scorchers take a short cut by pleading guilty, accepting and paying their fines. Policeman Stinger urges the board of police com-

missioners to buy several cars with a maximum speed of 70 miles an hour so the swiftest machine could be quickly run down. The knowledge that such high-speed cars were in the service of the police department, he says, would have a salutary effect and would prevent violations of the law.

St. Louis Waking Up—The St. Louis municipality is preparing to build a magnificent boulevard on King's highway, extending from the extreme northern part of the city to the southern. This will make a driveway more than 20 miles long, and when completed will be one of the finest pleasure highways in the United States. Bonds already have been voted by the city to build the boulevard.

District Election—The annual meeting of the Automobile Club of Washington for the election of officers for the ensuing year was held Saturday night. The following were elected: President, Robert B. Caverly; vice-president, C. E. Wood; secretary, Leroy Mark; treasurer, O. J. DeMoll; captain, F. H. Edmonds; lieutenant, C. R. Hough. All the old officers, with the exception of President Duvall, were re-elected. The club is in a prosperous condition and has proven an influential organization. The club celebrated New Year's day with an oyster roast at the clubhouse on Brightwood road.

Knock or a Boost?—Rather a peculiar sense of justice is that of George Leliter, a farmer living near Laporte, Ind. Some days ago a horse Mrs. Leliter was driving became frightened at a motor car and she was thrown from the buggy. A few days later, while driving to town, Mr. Leliter's horse became frightened at a car and, he asserts, the driver refused to give him his share of the road. Then the enraged farmer lashed his horse to a gallop, overtook the car, and, pulling the driver from it, gave him a thrashing. Whether the story is designed to run down the merits of some particular motor car or to give Leliter's horse a reputation for speed is not known.

Motor Car Census—The census bureau has just issued a bulletin on the manufacturing industries of New York in 1904, which shows, among other things, that in that year there were twenty-one establishments engaged in the manufacture of motor cars. The capital invested was \$3,172,531, the number of wage earners was 1,624, and the value of the product in that year was \$3,791,956. During the census year Buffalo reported five establishments, having a total capital of \$790,853, employing 625 wage earners and having a product valued at \$1,385,509. New York city reported six establishments with a capital of \$1,357,064. The number of wage earners was 430 and the product was valued at \$1,186,452. For the state fourteen establishments reported as being engaged in the manufacture of bodies and parts. The capital invested was \$174,413 and the product was valued at \$468,208.



LEGAL LIGHTS AND SIDE LIGHTS



MARYLAND OWNERS ORGANIZE

A new organization has been formed by the members of the Automobile Club of Maryland, to be known as the Automobilists' Protective Association of Maryland. This action was taken with the object of securing the enactment of rational motor car legislation, the rational enforcement of the existing measures and also for securing good roads throughout Maryland, and is the outcome of the treatment the owners of motor cars have received at the hands of the county constables, who hold stop watches and arrest every one who happens to exceed the present speed limit by the slightest fraction of a minute. The motorists think there should be some broad construction of the law in governing the rate of speed on the outskirts of the city and along the country roads where there is not much danger to the public safety. The following officers were elected: President, Osborne I. Yellott; secretary, Charles B. Finley. The president will appoint an executive committee later on. The league's motto is to be "A square deal," and the methods to be employed are: Every white male citizen entitled to vote and who is interested in the motor car as an owner or driver, or otherwise, shall be entitled to become a member of the league. There will be no membership fees or dues, the league being supported by voluntary contributions from any members disposed to make the same.

IN ROW OVER STREET

Boston is experiencing another shock. A few weeks ago it was proposed to abolish motor cars from Commonwealth avenue altogether, but it created such a howl that the scheme was abandoned. Now comes the latest and most freakish plan. The residents of one side—the northern or sunny side of the avenue—want the cars to be banished to the southern side. The thoroughfare is more than 100 feet wide and in the center of it all the way from Arlington street to Massachusetts avenue is a parkway which divides the avenue into really two streets. The trees growing along the center shades the avenue so that in the afternoon the northern side is sunny. In the afternoon the children play on that side in large numbers. Some of the residents urge this as a reason that cars should be made to use the other side. They say it endangers the children. They also declare that the dust blows into their houses. The people wanting this done regard themselves as the more fashionable element, and the plan has created a warfare. The residents of the shady side do not believe that they should be made swallow all the dust because their neighbors across the way

say so. Both sides of the street are now used, and to make such a change would invite collisions. Petitions for the change were quietly started, but when the matter became public others against the plan were quickly circulated. As to the children, they are in no danger, for a speed of 8 miles an hour only is allowed.

UPSETS BAY STATE LAW

The status of practically every local motor car regulation in the state of Massachusetts is radically affected by a decision by Judge Gaskill in the Middlesex superior court in the cases of Commonwealth vs. J. W. Covert and Commonwealth vs. J. H. Gridley. This decision is to the effect that all town and city regulations regarding motor cars passed prior to the act of 1906 are no longer in force and effect. He also incidentally ruled that the motor car law of 1906 is not in any part an amendment of previous laws, but is a new law. The cases against the defendants, Covert and Gridley, were placed on file. Covert and Gridley were summoned into court in November at Newton for driving faster than was reasonable and proper, the complaints having been made under the statutes. Attorneys for the defendants filed a motion to quash both complaints on the ground that the complaints should have been brought for a violation of the local regulations of the city of Newton, inasmuch as Newton had passed local regulations under the authority of the acts of 1905. Counsel for the defendants at that time stated that the question as to whether or not the local regulations passed by the various towns under the authority of the acts of 1905 were in force at the present time was important, and that the only way in which it could be finally determined would be to file a motion to quash, and, if overruled by Judge Kennedy, the cases would be taken to the superior court for a ruling. Judge Kennedy overruled the motion and the cases were then appealed to the superior court. The motions were argued and Judge Gaskill ruled that section 9 of the acts of 1906 repealed all regulations passed by the various towns and cities of the commonwealth prior to the passing of that act. The effect of this ruling will be far-reaching. The state highway commission is more or less at sea at present, and will have to consider the situation before announcing its program. Evidently most of the roadway signs posted by the commission are now valueless and must be replaced. Under Judge Gaskill's ruling it will be necessary for all towns and cities to make new regulations, which will, of course, necessitate many new hearings before the highway commission of Massachusetts.

REDRAFT THE GOPHER LAW

Legislation committees of the Minneapolis and St. Paul clubs have decided upon a complete redraft of the motor car laws of the state of Minnesota. After laboring for some time to prepare amendments to the present law, it has been decided to ask the legislature to pass a new law based upon the most successful laws of other states. A committee headed by Dr. C. H. Kohler, of Minneapolis, is securing copies of other bills and sifting out the best. The new Minnesota law will clear up the bad tangle in license numbers and the registration of machines, outlined previously in Motor Age, and will provide further: That no person, male or female, under 20 years of age, shall be allowed to drive big touring cars on the streets, and that a proper penalty be provided for the unauthorized use of cars by professional drivers or other persons. These two features are believed by the Minneapolis motorists to be worthy of particular attention at the hands of the legislature. Many accidents in the twin cities have been directly traceable to the operation of big cars by persons not able by age and experience to control the machines. Owners of cars in Minnesota have also suffered a great deal from the use of machines at night by unauthorized persons, many excellent cars having been smashed up. There is no penalty in the state laws to properly govern such cases, and the motorists want to affix as severe a penalty as now attaches to the unauthorized taking of a horse.

VERMONT'S NEW LAW

The new motor car law recently passed by the Vermont legislature has for its principal features a speed limit of 10 miles per hour in cities, villages and thickly settled territory, and 25 miles per hour outside. The penalty for violation of this provision is \$50 fine or 10 days in jail, or both, for a first offense, and not over \$200 nor less than \$25 fine, or 6 months in jail for subsequent offenses. The registration fee of \$3 is for machines of 20 horsepower, or less, and \$5 for machines of more than that power, with an operator's license of \$2. The fee for a distinguishing mark of a manufacturer or dealer is \$25. Residents of other states or countries are not obliged to take out a license in this state if Vermonters are allowed a like privilege in the state from which the visitors come. A penalty is provided for operating machines while in a state of intoxication; and the rear sign on a machine is to be illuminated at night or during a heavy fog by light from the outside. The new law is silent in regard to closing highways against motor cars.



BRIEF BUSINESS ANNOUNCEMENTS



Los Angeles, Cal.—R. Vallikert has been appointed the local representative of the Lambert car.

Newark, N. J.—Eichhorn & Black, of the City Hall garage, have taken the agency for the Crawford car.

Albany, N. Y.—The Van Auken Motor & Machine Co., of New York, was incorporated here recently with a capital stock of \$60,000.

Madison, Wis.—The McDuffee Automobile Co., of Chicago, has been incorporated in this state, with a capital stock of \$1,000.

Boston, Mass.—D. P. Nichols & Co., who were recently appointed representatives for the Frayer-Miller, have opened a salesroom in the motor mart.

New York—The Auto Car Co. has leased for a term of years the corner store and basement in the new building at the southeast corner of Eightieth street and Broadway, this city.

Boston, Mass.—The Buck-Price Co. has been incorporated, with a capital stock of \$100,000, to deal in motor cars and motor cycles, by John R. Buck and Bliss A. Price, of this city.

Hartford, Conn.—The Connecticut Automobile Parkway Corporation has been incorporated by George Pope, Wilbur C. Walker, Charles E. Walker, William C. Pope and E. L. Hopkins.

Worcester, Mass.—The Royal Motor Works Co. has filed articles of incorporation and will manufacture, sell and deal in motor cars and vehicles of all kinds. The capital stock is \$100,000.

Evansville, Ind.—The Worth Motor Car Co. is about to build a new factory here. W. O. and J. D. Worth, representatives of the concern, have been in town recently looking over the site for the plant.

Pittsburg, Pa.—The Keystone Auto Co. has secured quarters for its downtown showroom in the Fulton building on Sixth street. This company has the agency for the White, Welch, Ford and Stoddard-Dayton cars.

Boston, Mass.—The George H. Lowe Co. has filed articles of incorporation, with a capital stock of \$15,000, and will deal in motor cars and motors. George H. Lowe, of Newton Highlands, is given as the president, and George H. Coles, of Boston, as treasurer and clerk.

Denver, Colo.—Ground has been broken for the building of a new town in northern Colorado, to be known as Gilcrest. Among other industries which are to be located there is a motor car concern to be known as the Colburn Automobile Co., which will shortly commence the erection of an up-to-date factory inside the city limits.

Lakewood, N. J.—Joseph B. Hoff has been appointed agent for the American Mercedes in this city.

Pittsburg, Pa.—Manager McGiohan, of the Rainier garage, will open a branch somewhere in the downtown section.

Sandusky, O.—A new car is being manufactured here by the Barnes Mfg. Co., to be known as the Diamond runabout. It is a machine of the four-cylinder 12 horsepower type.

Akron, O.—The Akron Automobile Co. has been incorporated at Columbus. F. W. Work, S. G. Rogers, Fred C. Wood, H. H. Marks and N. O. Mather are named as the incorporators.

Boston, Mass.—John Wall, formerly connected with the Remington bicycle agency, is now traveling salesman for the Hartley & Graham Co., of New York city, with a factory in Bridgeport, Conn.

Pittsburg, Pa.—The Keystone Automobile Co. has opened a downtown show room on the first floor of the new Fulton skyscraper at Sixth street and Duquesne way. At least two other big firms are now negotiating for downtown rooms.

RECENT INCORPORATIONS

Garrett, Ind.—Garrett Automobile Co.; capital stock, \$10,000. Incorporators: C. J. Rollins, C. Cosgrove and William Mitchell.

Boston, Mass.—The Motor Car Renting Co.; capital stock, \$10,000; to deal in cars. Incorporators: F. E. and E. S. Litchfield.

Bloomfield, N. J.—Central Motor Car Co.; capital stock, \$25,000. Incorporators: Charles W. Smith, E. H. Cadmus and C. R. Underwood.

Troy, N. Y.—Troy Motor Carriage Co.; capital stock, \$1,000. Incorporators: Myron J. Adams, Warren A. Pine and Charles L. Pine.

Bay Shore, L. I.—Parkway Garage Co.; capital stock, \$4,000; to manufacture and store motor cars. Incorporators: Charles H. Covell, C. Herbert Covell and Richard H. Fenker.

East Orange, N. J.—Auto Appliance Co.; capital stock, \$150,000; to manufacture motor vehicles, etc. Incorporators: C. L. Beck, C. O. Geyer and F. O. Ferguson, all of East Orange.

Boston, Mass.—Austin Agency, Inc.; capital stock, \$10,000; to make and sell motor cars and other vehicles. Incorporators: F. E. Litchfield, president, and E. S. Litchfield, treasurer.

New York—Meteor Mfg. Co.; capital stock, \$10,000; to deal in supplies. Incorporators: J. H. Cunningham, of East Orange, N. J., and B. F. Schreiber and J. B. Strauss, both of New York.

New York—C. B. Rice Co.; capital stock, \$75,000; to manufacture motor cars. Incorporators: E. M. Jones, Ludwig Zelsler and A. B. Foster Beach, the latter residing in West Orange, N. J.

Glen Cove, N. Y.—Long Island Garage Co.; capital stock, \$25,000; to maintain a garage and manufacture motor cars. Incorporators: W. J. Blair, of 87 Quincy street, Brooklyn; Arthur J. Farrell, of Glen Cove, and C. A. Vostock, of 1907 Washington avenue, the Bronx.

Boston, Mass.—Buck & Price, recently incorporated, have secured the local agency for the Rainier.

Newark, N. J.—J. B. Ryall is to be agent for the Matheson car in this locality during the coming season.

Newark, N. J.—Raymond S. Joo has fitted up a repair shop and garage in the rear of his salesroom at 79 Orange street.

Los Angeles, Cal.—W. T. Moreland, formerly connected with the Tourist factory, has been appointed local agent for the Duro car.

San Francisco, Cal.—The Automobile Livery Co. has taken the local agency for the Matheson car, covering northern California as its exclusive territory.

Philadelphia, Pa.—Henry A. Rowan, Jr., & Co., recently appointed agents for the de Dietrich, have just completed alterations to their premises at 2028-2030 Sansom street.

Buffalo, N. Y.—The Selden Motor Co., formerly the Buffalo Gasoline Motor Co., has filed papers with the county clerk showing an increase of capital stock from \$50,000 to \$500,000.

Philadelphia, Pa.—Prescott Adamson will represent the Columbia gasoline and electric machines and will establish headquarters at the northwest corner of Broad and Spring Garden streets.

Newark, N. J.—C. Wayne Ward and Henry Setlow will handle the Compound and Dragon machines in New Jersey during the coming season, having their headquarters at the Roseville garage.

Newark, N. J.—A new garage has been opened at 354 Clifton avenue under the name of the Branch Brook garage. The new concern will represent the Knox Motor Truck Co., of Springfield, Mass.

Boston, Mass.—Fred H. Lucas, well known in the carriage trade in this city, has formed a partnership with C. F. Whitney, of the Park Square station, and the two will represent the Berliet and Stoddard-Dayton cars.

Pittsburg, Pa.—The Rainier Co. of New York, which recently established an agency in Pittsburg, has leased for 3 years from A. L. Richmond, Jr., 40 by 60 feet in the rear of Hotel Lincoln, in Pennsylvania avenue. This new brick building is intended as a garage.

Los Angeles, Cal.—A new company has been formed to look after the interests of the Marmon and Monarch cars in this city. It will be known as the Big Four Automobile Co. and will establish a salesroom at 110-114 East Ninth street. C. S. Anthony, formerly of the Elmore agency, is the head of the concern, and associated with him are T. Morehouse and Walter Helst.

WINTON
AND OTHER HIGHEST GRADE
MOTOR CARS



MODEL M

ARE EXHIBITED AT THE BIG
Automobile Show